

# ATHLETIC JOURNAL

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Running Bases

Daniel E. Jerome

Pitching Fundamentals for  
the Schoolboy

J. E. Gergen

Tactics in Tennis Doubles

Phil Brain

Training for the 880-Yard Run

Carl Olson

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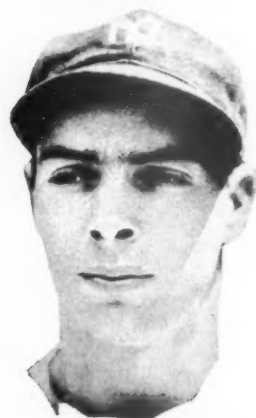
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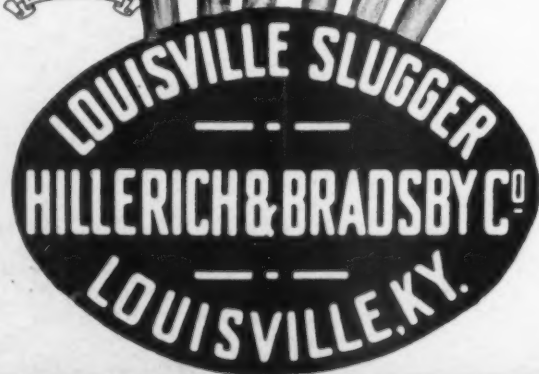
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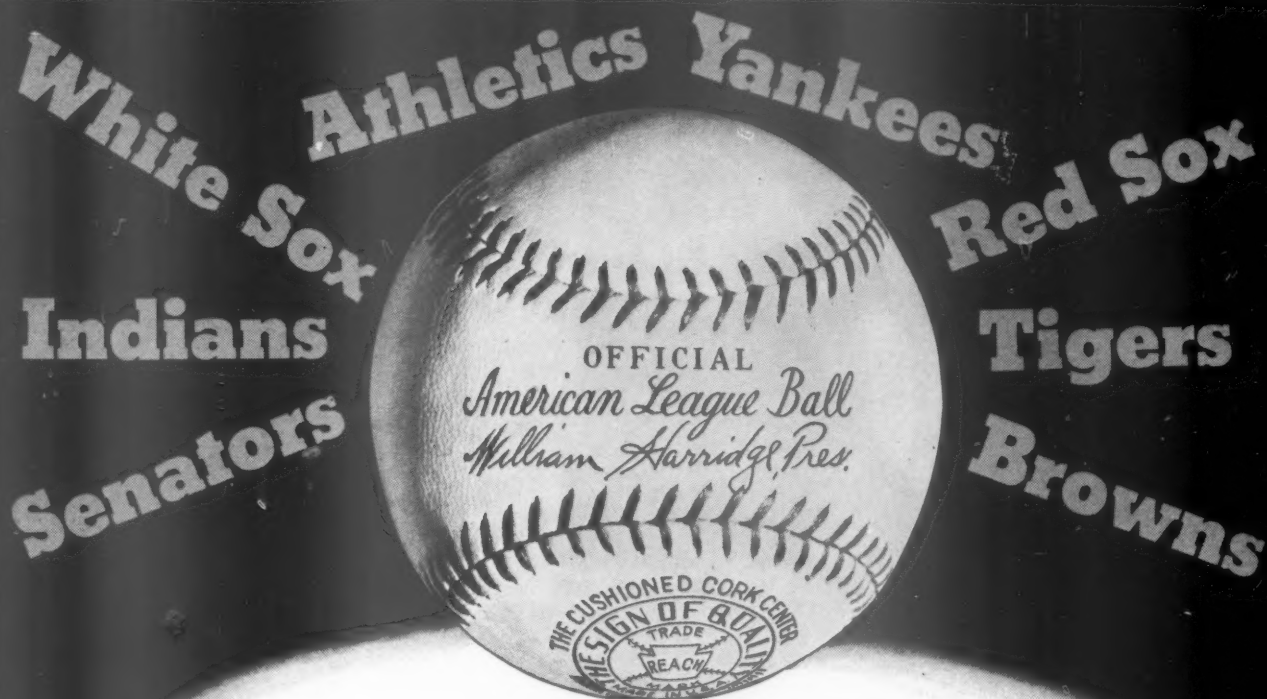
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A hook slide.

# Running Bases

By Daniel E. Jessee

Trinity College

**R**UNNING bases is one phase of baseball that the college and high school coach should emphasize. Every detail should be thoroughly taught.

With the proper coaching, players should develop into fair baserunners. Great baserunners come often, somewhat like great hitters, but there is little reason for the average player not knowing when to play safe and when to take chances. In baserunning there is no middle ground.

## Quick Start

One of the most important fundamentals of baserunning is the start. This is true in all phases of sports and particularly true of baseball in general.

On sacrifice plays the result hinges upon the quick start of the baserunner. When the runner is thrown out, it is usually due to some fanciful move of the pitcher, or the runner slowing down after making a break to look at the batter, or being caught leaning the wrong way when the pitcher delivers the ball.

## Ability to Diagnose

The baserunner should be able to diagnose plays and should be on the alert for chances to out-smart the opposition. The baserunner and batter constitute the offense and their every move makes for or against a run being scored.

## Lead from Base

Since the batter becomes a baserunner after hitting the ball or after the pitcher has issued four balls, placing the batter on first, the proper start on baserunning

should begin at the home plate.

## Start After Hitting the Ball

After hitting the ball, the batter if right-handed should ordinarily pivot on the left foot and step off with the right. If the stride into the ball is smooth, not too long nor off to the side (stepping on the bucket), the batter should be off to first base without any lost motion.

Most players want to look at the flight of the ball all the way to first instead of catching a glimpse of the ball as it leaves the bat, determining then, whether it is an infield ball, outfield ball, possible hit, or fly out, and run accordingly.

The batter should not look until the first base is rounded, unless he realizes that it is an infield ball and must beat the throw, in which case the batter is permitted to continue on over the base. If the ball goes into the outfield, the runner should step on the inside of first base with the left foot, using a pivot to prevent a wide circle into the outfield, and continue toward second base if possible. After rounding first base, at full speed, the runner is in position to see the ball which he must not lose sight of in going to second base, or in returning to first base.

If the batter is a left-handed hitter, the start for first base would be made using the right foot as a pivot and bringing the left around in stride. The bunting start for both right and left-handed batters would be similar except their position would be more open.

## Preliminary Position

Before the pitcher takes his position on

the rubber, the baserunner should have his left foot in contact with first base. This position allows the runner to get signals and to size up situations. The runner should remain in this position until the pitcher has assumed his stance in the pitcher's box. This will prevent hidden ball plays and allow the runner to adjust his lead. This position should be assumed by all baserunners regardless of the base they occupy. There are numerous styles for getting a lead off bases. Some prefer a semi-crouch facing the base they are leading off, while others use just the reverse. The type most commonly used is a shifting style facing the pitcher and watching the ball. The lead from the base will have to vary according to the individual. Ten feet may be safe for one player and be dangerous for another. The pitcher and the opponents must be considered. The best method to prevent the runner from being caught off base is for him to watch the ball and be alert. He should not let the basemen bother him too much. He should get a safe lead and watch the ball. Base coaches may aid when the ball is at the runner's back, but the major responsibility is upon the baserunner's shoulders at all times. He should not rely on fancy capers to fool the pitcher and fielders, such as kicking dirt or jumping starts and stops. The baserunner is usually the person fooled; he is often caught off-balance and tagged out.

## The Plain Steal

The first lesson for the baserunner is to remember that most bases are stolen on the pitcher. If it is possible to get a good start on the pitcher, the best catcher in



the world would have a difficult time throwing out a baserunner. The runner should study the peculiarities of the pitcher's movements and try to detect some give away that may give him the advantage. On the plain steal as well as on any type of steal, it is the start that is important.

The batter should take a swing at the ball, causing as much of a legal delay as possible. This adds to the already heavy burden on the catcher's shoulders and may prove the one that will make the steal successful.

The plain steal is usually worked with one man down and a fair hitter coming up. It is worked in other situations depending on the pitcher, catcher, the score of the game, and the baserunner.

### The Double Steal

This play is often worked when one run would tie the score or two would win, with less than two down. The play may also be worked to advantage with two men down and a weak hitter coming up. When this play is used the baserunners are either on first and second, or on first and third. When runners are on first and second, the play starts by the steal of third, the runner on first advancing on the play. When runners are on third and first the play starts by the runner on first drawing the throw and the runner on third, after having a good lead, advancing home on the throw to second by the catcher. The runner on first, after a fast start to draw the throw, stops short of second and gets into a "hot box." If the man on third holds his base, due to a fake or poor start, he now assumes his lead, and as soon as the ball is in an advantageous position, (usually after the ball has left the first baseman's hand headed for second on an attempt to tag out the runner between first and second) the man on third starts for home.



Position of a baserunner before the pitch.

### The Delayed Steal

The delayed steal may be worked with the following men on bases. First base, second base, third base. The combination of baserunners would be first and third, and first and second. The delayed steal is usually the result of a lob peg back to the pitcher by the catcher. The baserunner pretends he is going back to his original base, but at the instant the ball leaves the catcher's hand he starts for the advanced base. If first and third are occupied, the man on third waits until there is a play made at second and then breaks for home. The pitcher as well as the men covering the bases are usually caught napping. When baserunners are on first and second, the runner occupying second makes the start and the player on first follows up.

The one rule that a baserunner should always remember is to advance when a runner ahead attempts a steal or is caught in a run-down play. Regardless of the reason that the runner ahead advances, it is the duty of the baserunner behind to advance also. If it is a "boner" on the original runner's part, the runner behind may partly cover the boner by advancing and putting himself in scoring position, or in the confusion may eliminate the bad play entirely.

### Hit and Run Plays

This type of play was originated by the late John McGraw of the New York Giants. It has great possibilities in college baseball and should be encouraged. The play should be manipulated as far as possible by the coach. By that I mean that the coach should pick the ball that the batter is to hit, and give the signals to the baserunner or runners. The play is usually worked with a man on first, one down, or none down. The idea behind the play is to prevent a double play and give the runner a start, so that if the play is successful the runner may advance to third and the batter go to second. The batter should try to hit the ball behind the runner so as to make necessary a long throw to third. The other possibility is to pull one or both of the keystone combination out of position, whereby the ball may be hit through the infield for a safe hit.

The baserunner may aid the play by not starting too soon. By this I mean that, if the runner delays his start a fraction it will pull the cover player out of position and leave an opening. If the runner had started fast the cover player might have an opportunity to regain balance and field the ball. The baserunner after starting must run as fast as possible, but at the sound of the ball hitting the bat, he should ascertain the direction of the ball, whether it is a ground ball, fly ball, or a safe hit. If it is in the air, the runner should stop and be ready to return to the original base.

If it is a ground ball in fielding position, the runner should slide into second base.

The batter, in case of a hit and run, must hit the ball, even if it means throwing the bat at it. The play is not designed as a steal and the batter must protect the baserunner by hitting the ball.

The play should be worked when the advantage is with the batter. The count on the batter should be in his favor, such as two balls and no strikes, three balls and one strike, etc. The coach can help the play by careful study of the situation and by picking the ball for the batter.

The bunt and run may be worked along the same plan.

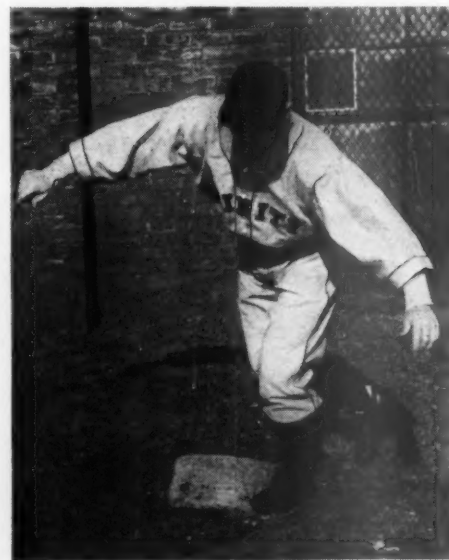
### Sliding

Good baserunning cannot be achieved without thorough knowledge and perfection of the slide. A good deal of time should be spent in perfecting the slide. Without the proper technique, it is very easy for the player to break an ankle or be made ground shy. A player should always have his *mind made up* to slide, then he will be in a position to land correctly. It is usually the last second thought that the slide must be made that carries injury with it.

### Hook Slide

This slide is made by throwing the body on the side of either leg and hooking with the other. It is a side lay-out position with the spikes of one foot facing the knee of the opposite leg. The spikes of both feet should be in line with each other. One foot should be hooking the corner of the base. This should be more of a lay-out than a sit-down. The idea is to take the weight off the feet. Most of the weight should be put on the gluteus muscles with the head tucked to prevent contact with the ground.

(Continued on page 41)



Rounding bases. Touching first base with the left foot.

# Pitching Fundamentals for the Schoolboy

By J. E. Gargan

Kingswood School, West Hartford, Conn.

**I**F a coach can organize his ideas on fundamentals and decide which are the most important and in what order they should be learned, his coaching will probably be more effective than if he has no definite plan. When dealing with schoolboys, the coach must have a simple and definite way of teaching essentials. I believe, in the case of the schoolboy pitcher, the young and comparatively inexperienced boy whose habits are not too well established to be changed, that the mechanics of pitching should first be stressed. After he has mastered the mechanics of the position he may turn his attention to a study of pitching to the batter's weakness.

With this in mind, I like to approach the problem of the development of a young pitcher by considering the following steps

as fundamental: 1. Condition, 2. Stance, 3. Delivery, 4. Control, 5. Fielding. I do not suggest that they are the best for developing a pitcher—every coach has his own ideas—but I merely offer them as a plan which I have found to be effective.

## 1. CONDITION

Good condition is as fundamental to pitching as it is to any form of competitive athletics. That this is the basis of his development is the first idea which we try

to get across to the prospective pitcher. Before we allow a boy to start practice, we emphasize the following points and make sure that they are understood:

- A. Work, not sleight of hand, makes the pitcher. The entire body is used but the greatest strain comes on the pitching arm and on the legs.
- B. The arm of the pitcher is best conditioned by his knowledge of what constitutes a good delivery, by exercises to develop the wrist, by routine in warming-up, and by care of the arm after throwing.
- C. The legs are conditioned by plenty of running during early season and later by work on the field that involves running.

## Specific Suggestions for Conditioning

1. Start indoor practice not later than the first of March.
2. In early season practice, loosen the arm and trunk muscles by stretching and bending exercises of the trunk and follow these with a few windmill exercises of both arms before throwing. These exercises are



Illustration 1—Hand position for a fast ball. Note: Some pitchers may prefer to hold the thumb a little further underneath the ball.



Illustration 2—Hand position for a curve ball. Note: Some pitchers may prefer to hold the thumb a little further down on the ball.



Illustration 3—Normal stance, good relaxation (bases occupied).

**I**N the April 1937 issue of this publication appeared an article on *Helping the Secondary School Batter*, by J. E. Gargan, Athletic Director and Head Coach of Kingswood School, West Hartford, Connecticut.

Although the article was written primarily for the secondary school coach, so many favorable comments from both college and high school coaches were received, that Mr. Gargan was requested to write again this year.

This article on the *Pitching Fundamentals for the Schoolboy* will be concluded in the May issue.



Illustration 4—Pitcher's position with a runner on first. He pivots toward the base and steps with the throw.





Illustration 5 shows the pitcher throwing to first.

valuable at any time throughout the season when it is desirable to shorten the warm-up period.

3. A smooth, overhand delivery is the least fatiguing. Stick to this type. Eliminate any elbow-snap.

4. In warming-up, always start throwing at about 45 feet, increasing the speed and distance gradually until you are finally throwing the full distance. For warming-up and practice, the pitching distance should be measured accurately and a regulation home and pitcher's plate set out.

5. During early season practice do not throw at full speed or attempt to throw a curve until after two weeks of daily work-outs.

6. When the season starts develop the legs by pepper games catching flies, chasing balls in hitting practice and running bases.

7. After two weeks' practice start throwing your curve at about three-quarter speed.

8. When warming-up, never throw at full speed until the arm starts to stretch. Do not throw a curve until thoroughly warmed up and then start throwing it at slow speed.

9. Never stand around after a work-out.

10. Always wear a woolen shirt and have a jacket handy to slip on during times when you are not pitching.

11. In early season try to develop wrist mobility by exercising the wrist. Indian club swinging is a good exercise for this purpose but should be done with light clubs.

12. Don't throw snow balls.

13. Always stop pitching if your arm begins to feel heavy.

14. Massage of the pitching arm should be used only when the arm is sore and

should always be light. Heavy massage and deep kneading are harmful. Heat and rest are the best curatives for a sore arm.

15. Be careful about taking a hot shower during indoor work-outs and for the first few days out of doors. It is best to use only moderately warm water and avoid the possibility of muscular stiffness by chilling after a hot shower. If hot water is used, be sure to avoid any chance of the body cooling off too quickly. Follow the warm water with a dash of cold. Dry the body thoroughly and dress slowly. Wear clothing that will keep the arm warm.

## 2. STANCE

The first step for the coach in teaching the mechanics of pitching is to show the pitcher how to take his position to start the pitch so that his delivery will be most effective in throwing to the batter and in



Illustration 6—Pitcher's position with a runner on second (only). He pivots to the right from this position for a throw to second base.

holding baserunners close to the bags. The following phases are to be taught in order:

A. Method of holding the ball. B. Stance for regular delivery. C. Stance with runners on bases.

## Method of Holding the Ball

The young pitcher should eliminate all freak methods of holding the ball. He should learn a definite way and be careful to see that, each time that he pitches, the ball is held in the same manner. The fast ball should be held with the first two fingers across the two seams where they are closest, with a very slight spread of the

fingers. (See Illustration 1.) The thumb is underneath the ball, just a little toward the side and extended. The thumb must not be too far under the ball. The ball fits into the pocket formed by the thumb, the first two fingers on top and the third and fourth fingers at the side. In grasping the ball, the pitcher must be careful that the ball is not pushed too far back into this pocket. It should be held well out by the fingers so that there is some space between the palm and the ball.

The curve ball is held in the same manner as the fast ball except that it is rotated so that the second finger lies along one of the seams. (See Illustration 2.)

The change of pace is held the same as the fast ball, but with loosened fingers.

The ball should be adjusted before the pitcher takes the stance upon the rubber.

## Stance for Regular Delivery

The front foot should rest upon the mid-point of the front edge of the rubber in such a manner that the front and inside spikes are hooked over the edge. The other foot rests on the ground to the rear of the rubber with the toe touching the rear edge of the plate near the end. This should be the normal position on the rubber. (See Illustration 3.) For various reasons it might be desirable to shift to a different spot on the rubber during the course of a game, but the feet maintain the same relative positions even though the pitcher stands in a different place. In general, it is best for the young pitcher to practice and to pitch from his normal spot. Before the start of the delivery much of his weight should be on the rear

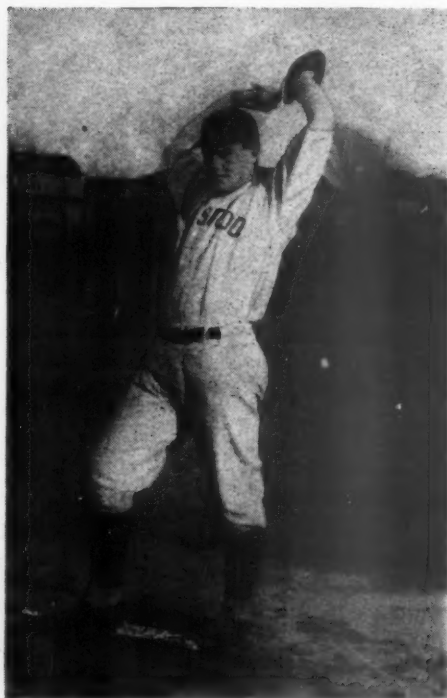


Illustration 7 shows the wind-up, just before the pitcher starts his body-turn for the pitch.





Illustration 8—Start of delivery. The pitching arm is well back and there is a good kick-up of the front leg.



Illustration 10 is the completion of the follow-through which brings the pitcher into a fielding position.

foot; his body should face directly toward the home plate with both arms at the sides and the body relaxed. He should concentrate on the target offered by his catcher.

#### *Stance with Runners on Bases*

With a runner on first, or runners on first and second, or first and third, the right-handed pitcher should take his stance with the right foot parallel to the rubber and pushed up against the front edge rather than on top of it. (See Illustration 4.) However, he may find it more comfortable to place this foot at a slight angle to the rubber with the heel resting on top. In this case, as he delivers the ball, the heel is raised, the foot is rotated with the turn of the body and comes to rest parallel to the rubber and in contact with it.

The toe of the front (left) foot should be on a line between the heel of the rear foot and home plate with the toe pointing in the general direction of the batter. The weight should be mostly on the rear foot. The ball should be held in both hands in front of the body, slightly lower than chest-high, with the glove covering the ball. The elbows should be held close to the sides. The body should be facing a point on the third base line near home plate rather than directly toward home plate. From this stance and looking toward his catcher, the pitcher can see first base out of the corner of his eye and by slightly turning his head can sight the baserunner. (See Illustration 5.)

With a runner on second, or runners on second and third, his stance is the same except that the front foot is moved over and placed parallel to the rear foot, and the body faces toward third base. (See Illustration 6.)

With a runner on third (only) or the bases full, he takes his normal stance on the rubber.



Illustration 9 shows the pitcher starting the act of bringing his arm up and over in an overhand delivery.

#### *Specific Suggestions Regarding Stances*

1. Learn the stance for normal position first. It may take several days' practice before a good stance feels comfortable. Practice the normal stance and delivery for about 30 minutes daily.

2. Learn the baserunner stances next. The stances for a runner on first and the stance when only second is occupied vary slightly, and both should be practiced.

3. Practice the normal stance and the baserunner stances equally. Later add practice in pivoting to your baserunner stances.

4. When using the baserunner stance, keep the elbows close to the body and bend the knees only slightly.

5. With the back toe just touching the rubber in the normal stance, a pitcher can get more body turn than if the feet are parallel.

6. Always adjust the ball in the hand

before taking the stance on the rubber.

7. Form the habit of taking the signals from the catcher while standing close to the rubber.

#### **3. DELIVERY**

A. From normal pitching stance.

The pitcher, with his eyes on the target offered by his catcher, should swing both arms forward and upward to a position well above and slightly behind the head, covering the ball with the glove. (See Illustration 7.) He should bend backward slightly. This swing of the arms and backward bend is all the wind-up needed. To start the pitch (illustration 8), the right-hander lifts the front foot into a fairly high kick-up as he pivots on the right foot and brings the arm down and back with a body twist. His right shoulder should point toward second base. He then brings the arm up and over, steps fairly short with the front foot, and follows through by finishing with the arm well extended and the right shoulder pointing toward the plate. (See Illustration 9.) As the arm is brought over, the right leg swings in a wide arc, and at the finish of the pitch the right foot is planted about parallel to the left. From this position, with feet well spread, the pitcher is in a position to field the ball. (See Illustration 10.)

In throwing his curve, the pitcher may find it more effective to bring the arm through at an arc of greater angle starting above the shoulder. This angle or deviation from the straight overhand should never be more than about 45 degrees. When the angle is increased more than that, it becomes a side-arm rather than an overhand motion.

In throwing a change of pace, the motion is the same as for the fast ball; the pitcher takes a longer step, relaxes his wrist and loosens his fingers, eases up on his arm motion and tries to throw the ball at about three-quarter speed.

B. From the baserunner stance.

The conduct of the pitcher in the box with a runner on base requires careful study by the young pitcher. During his early season practice, he should go over the pitching rules and get a good working idea of the important regulations and restrictions. Alertness on the part of the

coach to ask questions, to point out possibilities and to explain situations will help clarify the inexperienced pitcher's ideas.

The rules governing his delivery state that after he has taken his required position in the box with both hands holding the ball in front of him, if he indulges in a pre-

liminary stretch by raising his arms above his head, he must return to a natural pitcher's position and stop before delivering the ball. Also, after taking his position in the box with both hands holding the ball in front of him, he cannot take either hand  
(Continued on page 45)

# Tactics in Tennis Doubles

By Phil Brain

University of Minnesota

**S**INGLES and doubles in tennis furnish two different styles of play. A player may be very good at singles and yet be a poor doubles player, and vice versa, a good doubles player may be very weak at singles.

The doubles game differs from singles in that a doubles team is only as strong as the weaker player. This is true because each player must protect or take care of half of the playing court. If one player is unable to do his or her share, then the team is weakened in that the stronger player must cover too much court and will leave openings that would not ordinarily be left.

The service in doubles need not be hard as in singles, but must be so placed in the court as to force the opponent to make a weak return, usually if possible, to the server's partner. The server should be able to follow the service into the net. A

good doubles team will always try to get the net position, and the server always has the first opportunity to get to the net. The best doubles team is one whose partners stay parallel, that is, both players up to the net or both back. If one member should be forced to the base line by a lob, then the partner should also

## POSITION OF THE SERVER

(Diagram 1)

Tennis doubles is an entirely different game from singles. In doubles play, teamwork with one's partner is very essential. In Diagram 1, A is the server, B his partner, and C and D are partners. A, after serving immediately takes the position of A2. There is no if about this, A must get to the position A2 at once, regardless of the serve. If A stays back after serving, C and D have a good chance to come to the net to the position of C2 and D2.

The team holding the net positions will as a rule win the point. A has the first opportunity to take the net beside his partner B and should take full advantage of his chances. A has a better command from the serving position as shown rather than serving from the center of the base line A3 (the position from which he would serve in singles). B has only to watch the side line, or alley shot on the return of the service, and should never move toward A or poach unless a chance arises for a kill shot or a placement ace.

Each player on each team should take care of his particular side of the court and both players should be up or back together.

## PLACEMENT OF THE SERVE

(Diagram 2)

Server A should place the serve so that it will strike in the shaded portion of the service court, remembering as in singles to cause the receiver to move before making the return. One very important factor for the server to remember is that he should make the first serve good. As the server must run to the net on every service, a faulty serve means so much energy wasted in going up, then having to return to make the second serve.

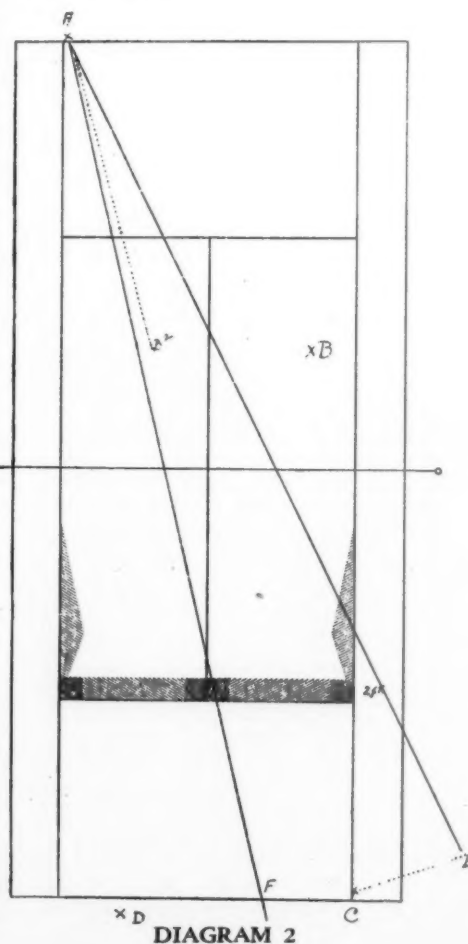
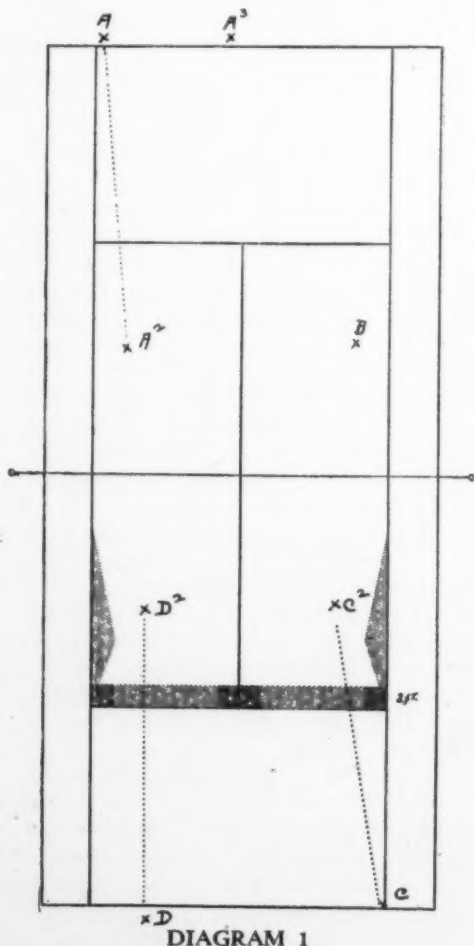
A serve down the center line A-F will force C to return with a backhand, while a serve along the line A-E will force C to go out of the court to make his return.

A slice-serve along A-E will cause C to go farther out of the court, but any serve, well placed, is worth more than

retract and play on the base line, but at the first chance, both players should take the net position. The doubles team that can get the net position will usually win the point.

Strokes in doubles are different from those in singles, not in manner of execution, so much as in depth. In singles, which is more of a side line game, the ball should carry depth, that is, hit the court near the base line. In doubles, with the players playing at the net, the ball should cross the net as low as possible and hit the ground inside the cross-service line. In doubles the ball is played more down the center and at sharp cross-court shots.

The accompanying charts with their instruction will give some very good plays that show how points may be won. Tennis doubles, as well as singles, may be played like checkers. The plays may be figured out ahead of time.



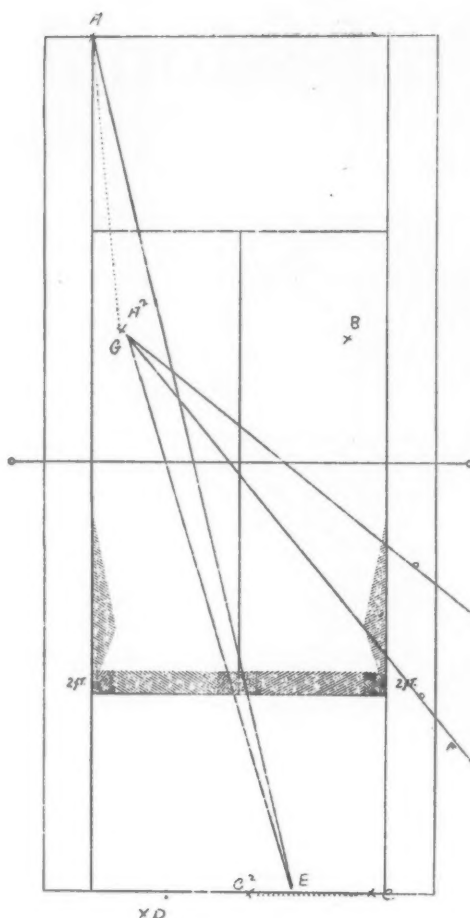


Diagram 3

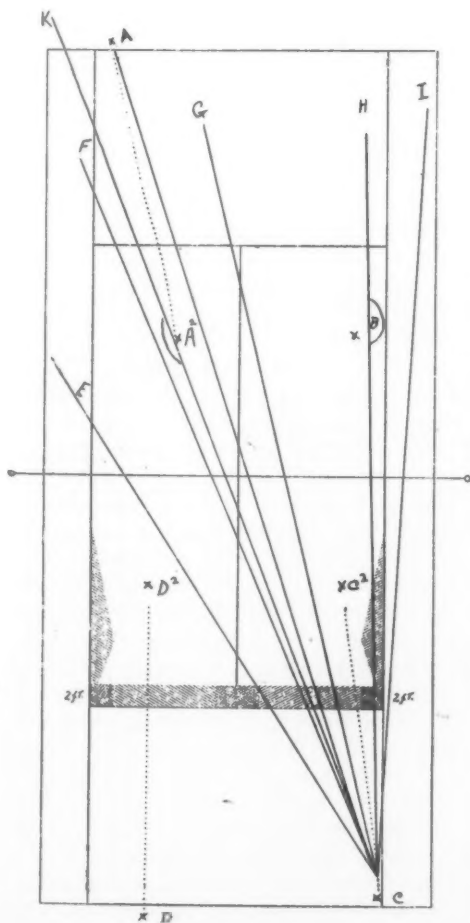


Diagram 4

a cannon-ball serve, not well placed. Sacrifice speed for accuracy. This holds true for all shots.

### A SERVE AGAINST A PLAYER WITH A WEAK BACKHAND (Diagram 3)

One of the best points starting from service against a player with a weak backhand is shown. If C, the receiver, has a weak backhand, he will attempt to run around the ball to position C2. Accordingly, the opponent should serve him a slow ball along A-E, tempting C to run around the ball to C2. C2 will make a forehand drive E-G which A will take from position A2 and volley along the line G-F. G-F can be made very sharp, hitting the court closer to the net than shown.

### THE RECEIVER (Diagram 4)

The receiver has a variety of returns to make from service. One is to keep in mind that the return must be placed out of reach of the server's partner B. A serves to C along the line A-C. Notice that the C position is just in front of, or on the base line. D, his partner, is on the opposite side of the court and about three feet behind the base line.

C returns the ball, either a sharp cross-court shot C-E, a drive down the center line C-G or straight at the server as he comes in C-F or, in case B attempts to crowd the center line or poach on A's territory, down the side line C-I. There are two other returns very effective, particularly if B plays close to the net or if A, in coming in, crowds the net. These are lobs either over B or over A, C-H or C-K. If a lob is made and is going to strike the ground and not be taken overhead C and D should take advantage of the opportunity of immediately taking the net positions C2 and D2.

### RETURN OF SERVICE (Diagram 5)

Another effective return of service is the drop shot in the alley of the server. A serves to C. C makes a drop shot which A is forced to take at point A2. As this is done B edges over to position B2. A2 is forced to raise the ball to return it over the net and D who has followed in quickly to D2 drives A2's return between A2 and B. A's protection on this return would be a sharp volley A2 to F.

### A DOUBLE PLAY REQUIRING TWO DELICATE SHOTS (Diagram 6)

A serves to C and follows in to A2. C returns the service as a drop shot to point E and follows to the net at point F. D goes to the net to position D2 at the beginning of the service. A has had to change from point A to point E to make the return of the drop shot C-E and invariably will make the return E-F. C should then volley-lob from F to G. D must be careful to protect his alley as A might make a return E-H if the alley is left unguarded. D should also be prepared to volley-lob over A's head to point G. If the drop shot is very short, A will be drawn in extremely close to the net and cannot return to G.

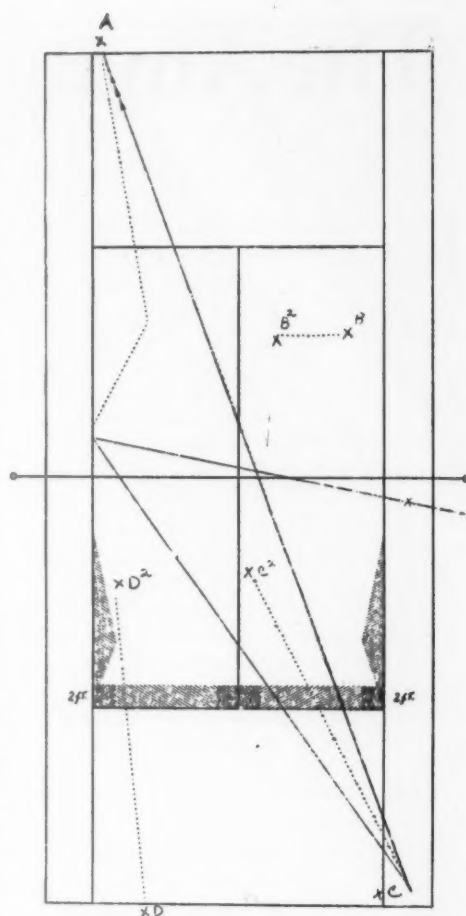


Diagram 5

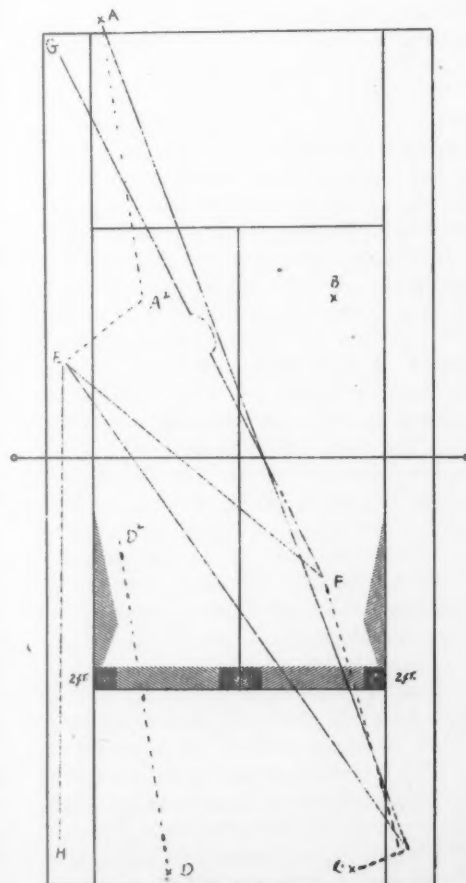


Diagram 6



# The Amateur and the Professional

By W. Branch Rickey

Vice-President, St. Louis National Baseball Club

I HAVE prepared for this address (you won't detect that fact, but it's true); not with the same result, perhaps, that you get from Dr. Tigert or Major Griffith, for they are giving you the look from within. They know why they speak as they do. They have reason for the faith that is in them. I do too, but mine is a look from without. I am a frank professional. It is true that I am a member of the Board of Trustees of three obscure but good institutions. I am of course intensely interested in this matter of college athletics. I want to prove it. I want to relate myself to you. I want to feel that I am among friends, at least. If I had qualified sons I'd send them to Dr. Tigert's college after hearing him. I now understand, I think, why I have sent my daughter to President Aydelotte's college. I didn't know when I sent her, but I find it out this morning. I have two children who are graduates of colleges, another in Chicago, and two others in preparatory schools—six of them. Naturally, a man has to have an interest in education and what it all means, with a family of that sort.

I have been preached to terribly this morning, I think. If redemption is functioning at all, some of you fellows should be at the mourners' bench.

The first question that arises is as to the origin of sports. I am glad this meeting is in New Orleans, as I have an illustration in this connection which I feel will be of interest concerning the little knowledge we have as to the beginning of sports.

In a legal transaction involving the title to a parcel of land in Louisiana, the firm of New York attorneys handling the matter requested that a title opinion be furnished. A New Orleans lawyer who was retained to check the title rendered an opinion tracing the title back to 1803. The New York firm examined the opinion and wrote again to the New Orleans attorney saying, in effect, that the opinion rendered was all very well as far as it went, but that the title to the property prior to 1803 had not been satisfactorily covered. The New Orleans attorney replied as follows:

"Dear Sirs:

"I am in receipt of your favor of the fifth inst. inquiring as to the state of the title of this property prior to the year 1803.

"Please be advised that in the year 1803 the United States of America acquired the Territory of Louisiana from the Republic of France by purchase, the Republic of France had in turn acquired title from the Spanish Crown by conquest, the Spanish

**A**N address delivered by Mr. Branch Rickey at the thirty-second annual convention of the National Collegiate Athletic Association last December in New Orleans is presented at this time.

*The subject is timely because of the consideration being given by department heads on the cost of maintaining baseball teams. Last year the colleges spent a half million dollars above the revenue received to maintain baseball on an intercollegiate basis. Mr. Rickey, who has been co-operating with other men in baseball to protect college baseball players who are importuned by scouts to play baseball before their graduation, makes some observations that will be of interest to all baseball coaches.*

Crown having originally acquired title by virtue of the discoveries of one Christopher Columbus, a Genoese sailor, who had been duly authorized to embark upon his voyages of discovery by Isabella, Queen of Spain; Isabella before granting such authority had obtained the sanction of His Holiness, the Pope; the Pope is the Vicar on earth of Jesus Christ; Jesus Christ is the Son and Heir-apparent of God; God made Louisiana.

Very truly yours,"

There is a wonderful tradition in sports. In first place in my profound respect is Mr. A. A. Stagg. I am sure this is the opinion of the great majority of men in this room. His will and purposes and objects are second indeed to those of nobody else. I don't want it understood that I don't appreciate the opportunity of being on this program with the other gentlemen who have spoken—the challenge of it. I rate this particular group as partaking of tremendous opportunities in the whole field of education, not only in sports, which compel them to be sportsmen *de luxe*. The responsibility of your tasks makes you come to your best. You have to be that sort of men to match the high form of sportsmanship we have in this country, including the professional field. You men are paid for your services. The highest we have in this country comes from you gentlemen. It can come from no one else. The college presidents do not find these college boys. You find them—you find how they react to impulses which produce character in the rough. The president does not have that opportunity. The opportunity to contact the youth of America is an unexcelled opportunity. It's a fine thing in the world disturbance we are in now, it seems to me—it's a marvelous thing that this is possible in this country today,

when there is bombing in Nanking and killing of people with tremendous abandon in Spain, and where throughout the world there is a social situation that makes us all temporarily pessimistic. At the very time that the president of a democracy is asking for and getting appropriations for an enlarged navy, it's a significant fact that at a time like this men can be invited and can come to the twenty-fifth anniversary of a football coach out in the middle prairies of the central part of North America. Eighteen hundred came, and they couldn't seat them. Senators, and governors, and other noted men, and several of you gentlemen were there to do honor to a man named Zuppke. It is a promising thing and an encouraging thing that some great nation somewhere at a time like this can pause long enough to broadcast the things that are said by a man *par excellence* in the field of sports. It's a genuinely hopeful thing.

My boy and I were reading about the wars, and he said, "I don't understand how nations can go to war if they could understand each other as the boys at the Jamboree did." Sometimes out of the mouths of children great unsuspected wisdom can come, and so I say it's a marvelous thing and a challenging opportunity that comes to the coaches of this country and to the athletic directors of this country. You can't shift this responsibility if you would.

It makes no difference whether I speak. I should like to listen to you all over this room. You have definite ideas about this thing. Some of our ideas are at variance, and yet beneath it all there is a common objective.

I have only one point in mind. The relationship—we have been talking about it already—the relationship of athletics to a college curriculum,—the relationship of physical education to the sum total of the definition of education. It must be assumed as a premise that you are a component part in the whole scheme of education,—that you are partners in the whole plan and program of any proper definition of education. How well it would be if we only had a common and acceptable definition of education. This however is not so. There is no agreed definition of subsidizing or proselyting. If you come to a definition of amateur and agree that this is the definition, then I think you can proceed to methods. I doubt very much if the methods are different. There are many differences in the definition of subsidizing. It used to be that an amateur was one

(Continued on page 42)

# Track & Field



**THIS** article, the third of the series on Track and Field events contains studies of the broad jump, 880-yard run, discus and 220-yard dash. The series will be concluded in the May issue with write-ups of the two-mile run, the high jump, low hurdles and pole vault. The illustrations in this article as in the preceding issues have been reproduced from the film, made by the Athletic Department of the University of California at the National Collegiate Track and Field Meet at Berkeley in June, 1937.

## The Development and Training of Broad Jumpers

By Garfield W. Weede

Kansas State Teachers College, Pittsburg

**B**BROAD jumping, like most of the other field events, is a specialty and calls for special as well as general abilities in the athlete who is to attain exceptional performances.

Coaches in many schools and colleges have men as candidates who are possessed of average talents. Such coaches should, I believe, make a study of the methods used by the best broad jumpers and adjust these methods to their individual candidates in order to gain the best performance of each commensurate with his native qualifications. Methods will differ in individual performers and through the years as better jumpers are developed.

### Down the Runway

The native speed of a man who can run the 100-yard dash in ten seconds or less

may alone carry his body weight twenty-three feet without the development of any great height or a perfect take-off, but when this same speed can be linked with an unusual spring (second only to that of a great high jumper) then one may expect an additional foot or so in performance.

The coach who has a candidate with native speed should work with the athlete to develop his height and take-off. The coach with an athlete getting height naturally must work to develop his speed and take-off. The coach who is fortunate enough to have both speed and spring in an athlete can spend more time on finer points which seldom enter into his coaching of the athlete devoid of one or the other or both.

### Check Marks

The good broad jumper uses one or more definite check marks on the runway—the last of which is usually six or seven strides away from the take-off. If he hits these correctly, they will bring him to a properly balanced take-off position. Some jumpers use two or three check marks with six strides between each. A few of the best jumpers use only one check mark—that at

the start of the runway—but this procedure demands an extraordinarily rhythmic run to assure a practically perfect take-off, and very few jumpers can depend on it. The advantage of this single check mark, they claim, is a greater concentration on the take-off and no hesitancy caused by watching the intermediate check marks.

The wise broad jumper experiments with his known distance checks in his preliminary trials before the event starts and thus is sure of himself when competition actually begins.

### The Take-off

The length of the take-off run varies with jumpers from 100 to 130 feet. But, long or short, the run should be of gradually increasing speed until the jump is made—the greater the speed attained, the better the chances of a long jump. To gain unusual height, native spring is needed, but certain leg and body movements on the last two strides are found helpful for those athletes who do not gain height naturally. The body weight and balance must be so placed as to give the jumper a chance to drive upward with a terrific leg



reaction. A shortening of the last two strides, together with landing flat-footed on the last step before the jump, makes for a settling of the body weight; the momentum previously attained then carries the body weight slightly ahead of the point where it is when the athlete is in normal running position, thus giving the proper body balance for this upward and forward drive off the board.

In addition to this upward leg drive and simultaneous with it, there should be a decided throwing upward of the arms and the forward leg. Pictures of outstanding jumpers in action often clearly show this unusual outstretched arm action and upward throw of the front leg, knee first, at the start of the jump. There are, of course, jumpers who do not use this form. These are usually athletes who depend much on a "treading the foot" action in flight. These men usually do not attain the height of the other type jumpers.

### Flight and Landing

The jumping foot during the flight is brought up to and a little beyond the opposite knee. Some jumpers carry this position throughout the flight with little or no leg or body action until the feet are shot out at the finish, but a sort of "air-running" stride or "hitch-kicking" action is considered by many jumpers and coaches as helpful in maintaining body balance and in adding distance. As gravity gets the better of the height and body momentum, both feet of the jumper should be extended as far forward in the pit as possible but not so far that on alighting the athlete will fall back into the pit. Ordinarily the excessive momentum of the jumper will carry the body forward over the feet. Unless the reaching out is stressed, the feet (or one at least) are apt to drag and hit ground before the maximum distance is attained.

Many jumpers have to be watched on placement of the feet. Some cannot keep their heels together on alighting. This is desirable but not necessary. However, both feet should be placed forward equally to give the jumper the full benefit of the distance cleared.

### Practice

The kind and amount of practice a broad jumper should take will depend on whether he participates in this event as a specialty or as an extra event. If he is first a sprinter and jumps only as an extra event, then his first consideration will be his sprinting development. The development of a practically perfect stride and take-off will be stressed more than actual jumping, because the last has a tendency to jar the muscles of a sprinter. Probably because of this lack of actual jumping practice, the athlete will not become so proficient as a jumper as he would be if

he practiced more at this event, but his asset to the team as a point winner may be greater if he participates in both sprinting and jumping. The amount of work for the specialist varies with the time of the season. As the season progresses into the competitive period there is a letting up on hard work so as to conserve spring and eagerness for the day of the meets.

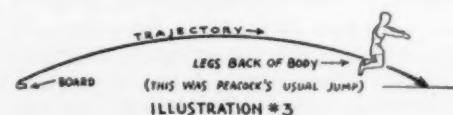
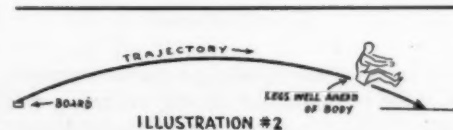
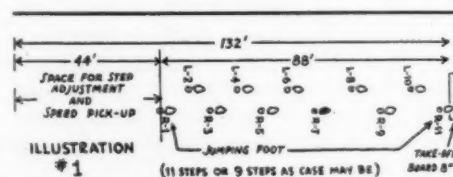
In the conditioning period of the season (very early season) the broad jumper should work at the same type of practice as all other track men: plenty of jogging to develop leg strength and endurance, body twisting and stretching exercises to strengthen and loosen up all muscles of the body. Since speed is a prime factor in his success, the jumper should, as soon as the weather allows, work on increasing his speed and rhythmic striding.

Springing from the jumping foot both to develop strength and stamina is indicated, and maintaining body balance in the air after gaining extra heights should be stressed.

### Later in the Season

The developmental period of the season which follows the conditioning period and precedes the competitive phase calls for considerable actual jumping. This period should see the hardest work on the part of the athlete. Every other day, if the weather is good, is not too much for actual jumping, provided the effect of the previous day's work has worn off. It is impossible to set any ironclad routine, as each man reacts differently to work. If the athlete feels no sore spots and his legs are relaxed from the previous jumping, no harm is apt to come from a repetition of the work on alternate days, but, if there is soreness and tenseness, lighter work is indicated.

Twice a week when meets are being held is enough for actual jumping and in the latter part of the competitive season jumping may be cut to once a week. However, each day should see much time spent on sprinting, springing in the air and checking the take-off run.



Dr. Weede who coached Kermit King, the winner of the first place in the 1937 N.C.A.A. meet, very thoroughly covered the development and training of broad jumpers in the May 1937 issue of this publication. A part of the article is reprinted for the benefit of this year's subscribers who do not have access to the article. Editor's note.

## Broad Jump Winners of the 1937 N.C.A.A. Meet

Arnold Nutting  
By Brutus Hamilton

Arnold Nutting who won second place in the N.C.A.A. Meet is a twenty-one year old senior pre-med at the University of California at Berkeley. He is 5 feet 10 inches tall, weighs 155 pounds and is ideally suited both physically and temperamentally for the running broad jump.

Unfortunately, pulled leg muscles during the 1937 season handicapped him and kept him out of most of the meets. However he was able to get back in shape late in the season and his leap of 25 feet 3 inches in the N.C.A.A. placed him a second behind Kermit King of Pittsburg Kansas Teachers in that meet.

Arnold possesses good spring, excellent speed and combines both with sound fundamental technic in his jump. He leaves the board with his weight well forward and transfers his forward speed into an upward and forward speed with noticeable smoothness. He uses the simple hip-throw form and after the throw usually manages to land with his feet well in front of him. He keeps his chest and shoulders well up during the early part of his jump, bringing them down as he puts his hands forward after the completion of his throw.

If Arnold can avoid injuries this spring, he should have an excellent year, as potentially he is one of the best jumpers of all times.

Eulace Peacock  
By Ben Ogden

When the old frontiers-man asked the friendly Indian of the plains how far it was to the Rocky Mountains, the answer was, "One moon or two moons away," meaning so many weeks of travel. When we say how far is 26 feet, we can say as long as this room or as far as it is across this street or make a hundred other comparisons, but when we say 26 feet is as far as only four men in the world have broad jumped, the distance takes on a new significance.

The average city-row house is eighteen feet wide and the average city street is twenty-five feet wide. When one analyzes, with such concrete distances in mind, the physical ability to jump clear across one living room and nearly halfway into the next room or from curb to curb of the





street then indeed 26 feet is more than mere distance—it is effort indelibly etched in the picture of human physical accomplishment.

Eulace Peacock of Temple University was one of these four men mentioned above to jump more than 26 feet. Yet, with all of this apparent ability he never achieved the acclaim that should have been his.

Euly, whom I coached for four years at Temple, was deprived of world recognition because of trackman's bugaboo, a leg injury. Yet, at the height of his career, (1935) the Negro athlete gained worldwide attention for his victories over Jesse Owens in both the century dash and broad jump. These great victories were scored in the National A.A.U. Championships of 1935, held at Lincoln, Nebraska, July 4th.

That boiling afternoon, Peacock negotiated the 100-meter dash in 10.2 seconds, both in the semi-final and final. And, later in the afternoon he catapulted through the air 26 feet 3 inches to establish a new broad-jump record for the A.A.U. Championships.

### Arnold Nutting Broad Jumping 1937 N.C.A.A. Meet

Illustration 1—Nutting is shown chopping his last stride, so as to bring his weight above his right (jumping) foot as it strikes the take-off board.

Illustration 2—As the foot strikes the board, note the lift of the shoulders in an effort to bring the entire weight into position above the jumping foot.

Illustration 3—The stride-in-air begins as the jumper leaves the board.

Illustration 4—The right leg is catching up with the left and is preparing to swing forward in the stride motion.

Illustration 5—Note the hip-lift, accomplished by throwing the arms and shoulders back as the jumping leg goes ahead of the left in its stride action.

Illustration 6—The stride-in-air or hitch-kick is completed. The arms are starting the downward and forward sweep.

Illustration 7—Note the left leg coming up to the right, arms swung downward and forward to carry the weight of the body above the feet and so assure the jumper forward balance on landing.

Illustration 8—As his feet strike the pit, Nutting is in excellent position to regain his forward balance by swinging his arms sharply forward and upward.





From there he went to Europe as a member of the A.A.U. team that swept Europe from one end to the other and competing in the 100 meters and broad jump, Peacock totalled thirty-one races and jumps in a little better than five weeks against the best that Europe could produce. Twice during this period, he equalled the then-accepted world's record for the 100-meter dash of 10.3 and averaged better than 25 feet in the broad jump. Out of the thirty-one races and jumps he lost only one race and that was in Milan, Italy when his leg went back on him.

Then the return to America, the rest period after the injury and the gradual building up of the terrific speed for the on-coming campaign to make the American Olympic Team; the hope to become America's number one sprinter.

In the opening meet of 1936 with the University of Pittsburgh, Peacock began to show form. The opposition was splendid but was out-classed in a brilliant 9.5 for the 100. Then the Penn Relays and stark tragedy! The 440-sprint relay, Peacock anchoring the team now in the third leg running in second position against the strong Texas team with Wallender of Texas taking the baton 12 yards in the lead. Peacock made up some of that twelve yards, trying to do the impossible to make up that yardage in a hundred and ten. Suddenly—with forty yards to go—the leg, no longer capable of taking the commands of the brain, the urge of a champion, gave out, but the momentum was so great and the instinct of the fighter so strong that the crippled figure hopped in on the good leg to a second place.

Then another long lay off. Rest, rest and more rest. The decision to try to come back. Slowly again the old building-up process. Once more the old power became apparent. A slow return to confidence was noticed.

The 1937 dual meet campaign opened. Once more, Pittsburgh furnished the opposition. Victory again! A double win in the Penn Relays in the 100 yards and the broad jump. From then on never losing through the season, Peacock totaled seventy-seven points against some of the best sprinters in the East.

At the National Collegiates at Berkeley, although Peacock was credited with the fastest 100 of the preliminaries and third in the broad jump, the leg that went bad at Milan failed again. Defeat once more, but I hope not for long. He has had his share of the breaks and with 1940 not so far away, who knows—it has been done before. Euly may do it again.

#### Peacock as a Broad Jumper

As a broad jumper Peacock presents an amazing spectacle to those who are primarily interested in the technique of this event. For, unlike most great jumpers, his technique is faulty and while he worked arduously to overcome this obvious difficulty, it was only occasionally that he succeeded. When he did succeed, he jumped over 26 feet.

His legs dragged and he rarely, if ever, accomplished a tuck and at the landing point they were invariably back of his body. This fault usually deprived him of about a foot of ground. It was not only my belief, but other coaches with whom I discussed the matter agreed that, if he could have mastered the leg-ahead-of-the-body technique he might have jumped 27 feet or better.

For his training in the broad jump and that (not his running), is primarily the purpose of this article, we have done things that were a bit unorthodox.

#### Speed, Spring and Control

First of all we must start with the following conception of the essentials of broad jumping. It is a question of superior *speed*, of *spring* and *control of the body position* in the air. If we agree that those are the essentials, then we can appreciate that the following methods, in Peacock's efforts at least, brought success.

Peacock had the necessary speed. To control and accelerate that speed so that no fouling would ensue is a simple problem in arithmetic. It has always been my belief that to start to run



backward from the board, as many jumpers still do, with a certain number of steps and from the *stopping* point make that the *starting* point, when one faces the board again, was like having the cart draw the horse.

We adopted a different course by having Peacock run down the 100-yard straightway at full speed and at some point beyond the 40-yard mark, we took the measurement of his stride from the toe to toe imprint in the cinders. With adequate rest between these sprints, we had him run three times, measuring his stride each trip. An average was calculated, and this average became his standard stride.

This stride length was then multiplied by an odd number, either by 9 or by 11. Whether or not we used the 9 or 11 depended upon his physical condition. At the beginning of the season we used the 11. As his condition improved we used the 9 factor. For example, if his standard stride were 8 feet, we multiplied 8 by 11 and the answer 88 feet was the point on which his jumping foot made contact FIRST. To permit him to hit this mark of 88 feet at approximately full speed, we took one half of 88 feet and added that 44 feet to the 88 feet for his starting point for his run, or 132 feet back from the near edge of the board.

The accuracy with which he contacted the 88-foot mark with his jumping foot plus the evenness of his stride gave him, in addition, the eight inches of the board for any other adjustment necessary to get the last ounce from his speed without the fear of fouling. Note in Illustration 1 how this works out. (See Page 14.)

The second factor in jumping is *spring*. To develop this in Peacock we used a jump step, a springy effort at an oblique angle, with the jumping foot doing it only at every fifth step. This he did, starting from a distance of 100 yards and then gradually working it up until sometimes he would go the entire 440 yards concentrating on that spring step. Usually this was done (after he was in condition) three times a week with varying intensity of effort which was purely a judgment control on my part as to how much he needed to keep his spring effort at the top of his ability.

The third factor trajectory is *control of the body position*. This was our greatest problem in the case of Peacock and one that we succeeded rarely in solving. In Illustration 2, Page 14, we see good technique at the end of the jump. In Illustration 3, Page 14, we see Peacock's usual jump, which even then averaged better than 25 feet. The few times that he approximated the body position of the jumper as shown in Illustration 2, he went over 26 feet.

With some jumpers, the body position seems to take care of itself; with others, it is a problem to get them to lift their feet and stick them out ahead of the body. Peacock's best weight was 175 pounds and to drive his body forward at the speed he did and then to pick up his legs and pull them from behind to catch up with the trunk speed were his greatest difficulties met, as we have pointed out, with intermittent success.

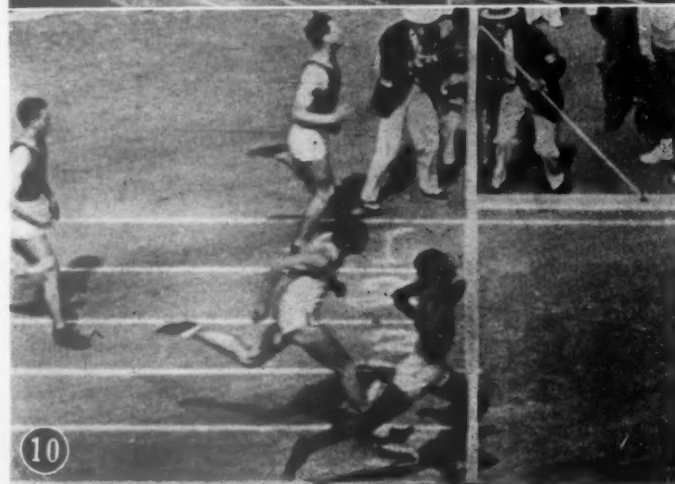
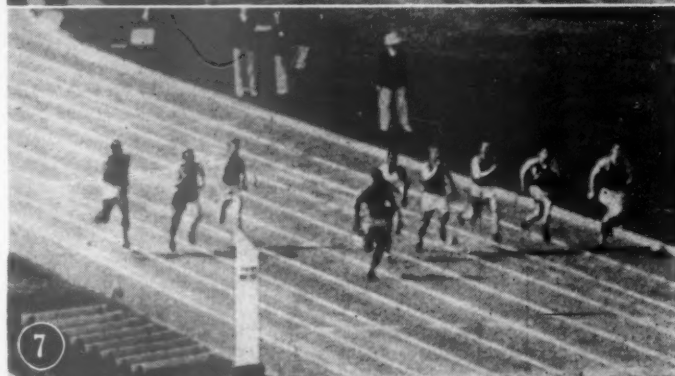
As an all-round athlete he was superb. He has high jumped 6 feet 3 inches, thrown the javelin 177 feet, the discus 127 feet 3 inches and was National A.A.U. Pentathlon Champion three times. He is present co-holder of the world's 100-meter record

## Ben Johnson Winning The 220-Yard Dash

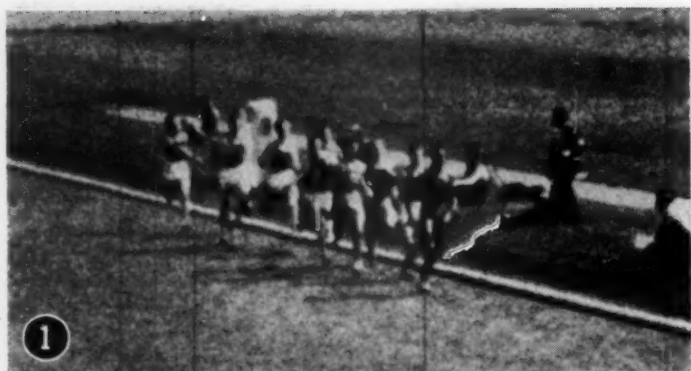
Johnson is running the entire distance in excellent form.

Note especially the free and powerful arm and leg action and the effective body lean in Illustrations 3, 4 and 5.

Johnson's form at the finish (Illustration 10) may be contrasted with that of the second and third men. The white-shirted runner has sacrificed form in an effort to hurl his torso forward at the tape. As a result, his forward lean is much too great. The dark-shirted runner, on the other hand, appears to have tied up with the intensity of his final effort and is too straight up. Johnson maintains his fine lean right on through to the tape, an excellent example of finishing form, marred only by a chin-lift.







of 10.3 and was credited last winter in the Maple Leaf Games at Toronto, Canada, with running the 60 yards in 6 seconds.

In thirteen dual meets during his sophomore, junior and senior years, competing only in the discus and javelin in his junior year, he totaled 179 points. As his coach, my biggest regret is that he lost his chance to compete in the Olympics in 1936, but I feel gratified in having had the thrill that all coaches hope at sometime or other to get, of being a bit instrumental in guiding such a marvelous specimen of human material to the heights of sublime achievement.

**Bob Hubbard**

**By Jim Kelly**

Bob Hubbard of Winona, a twenty-two year old senior at the University of Minnesota jumped 21 feet 8½ inches in high school, 22 feet 9 inches as a freshman, 23 feet 5⅞ inches as a sophomore and last year in the National Collegiate Meet jumped 24 feet 9½ inches, winning fourth place. He is 5 feet 8 inches tall and weighs 135 pounds.

Hubbard is not a sprinter but doubles in the high jump during the dual-meet season. He uses but one mark and that at 105 feet. We allow him to jump for distance once during the week in the regular season and to do just a moderate amount of sprinting as he is a very finely trained boy, with a lot of nervous energy. The biggest job in training him is to keep him from over-working.

Bob is a very ambitious boy with a fine competitive spirit and is determined to jump over 25 feet this year.

## Training for the 220-Yard Dash

**By Frank Hill**

*Track Coach, Northwestern University*

FOR the 220-yard man who has not an indoor track campaign behind him as a conditioner, training must begin with long, easy jogs. Running shoes with heels, cross-country type, are to be preferred at this stage. They lend support to the foot and leg and also encourage the runner to run more flat-footed than he will in regular sprint shoes. It is desirable that the runner tone up his leg muscles by this rather flat-footed jogging before he subjects muscles and tendons to the strain of speed work. This type of running, relaxed and easy, with occasional stretches of walking interspersed, should be continued for at least three weeks, if time permits. Time devoted to this form of workout will pay dividends in freedom from sore legs and pulled muscles during the regular season and, consequently, greater enjoyment of the sport. Too much stress cannot be laid upon the beneficial importance of this pre-season preparation.

The program of workouts, once the scheduled training period opens, must be laid out by the coach to suit the progress and physical powers of the sprinter. These workouts are of the same type for all sprinters but some men may need more, some less than others. The specimen schedule given here contains the work an athlete of average size and type should be given. Sprinters of slight build or those who are working in some other event may have to have this schedule modified to suit conditions. I doubt whether any sprinter should be given more work than is outlined.

The pictures of Ben Johnson in this issue give a fine demonstration of the value of relaxation while putting forth a maximum of effort and should be called to the attention of young aspiring sprinters.

### Suggested Training Schedule

The following training schedule is based upon the fact that no work is to start until the athlete has warmed up thoroughly.

*Monday.* Three gun starts, running about 30 yards each time; two 300's, first 250 striding with attention to sprinting

form, last 50 yards at top speed; jog light 440, bouncing and stretching.

*Tuesday.* Two heats, one of 125 yards, the other of 175 yards, both at full speed. Walk around track after each heat.

*Wednesday.* Five gun starts, going about 30 yards each time; two heats of 300 yards, first 80 yards and last 40 yards of each fast, in between distance at quarter-mile gait, paying attention to sprinting form, with emphasis on relaxation and body lean.

*Thursday.* Two heats of 150 yards each, full speed.

*Friday.* Very light work or complete rest.

*Saturday.* If no race, time trials; two heats 220 yards each, about 40 minutes apart.

## Training for the 880-Yard Run

By Carl Olson

Track Coach, University of Pittsburgh

**T**HE 880-yard or half-mile run is an event that requires both speed and endurance. I believe that the best way in which to build up stamina is cross-country running. All candidates for running events above the quarter-mile are advised to try out for the cross-country team. This, I find, builds up a boy's physique and makes it much easier for him to stand the rigorous training schedule, when he begins track practice in January. A boy who has gone through a regular cross-country season and then reports to the coach after a month's rest is in much better shape to stand a strenuous training period than the one who has done nothing.

Every boy who aspires to be a track and field athlete should first pass a complete physical examination given by a competent physician. No boy should indulge in any strenuous activity unless he is physically able to stand physical conditioning. It is very important that this conditioning process be under the supervision of a well-trained and experienced coach. It is well to allow at least two months' time to prepare a man for any running event, especially the ones from the 440-yard dash to the longer distances.

In the early season practice I advise a boy to jog a mile, take about twenty to twenty-five minutes of calisthenics, consisting of stretching and bending exercises, walk a quarter of a mile and then finish with another mile jog. The purpose of this work is merely preparation for work to come. I always try to have the boys work in groups, because it makes the training period more interesting. After a boy has practiced long enough to get rid of the temporary soreness of muscles, I begin striding practice. The varsity 880-yard runners are usually asked to work with the second and third stringers to help them out. I have found that

Illustration 1—Woodruff sprints to take the lead and sets his own pace.

Illustration 2—He is now in the clear preparatory to settling down to an even pace.

Illustration 3—He has now settled down to an even stride, which he will try to maintain for the better part of the race.

Illustration 4—Notice the drive off Woodruff's rear leg and the free arm action.

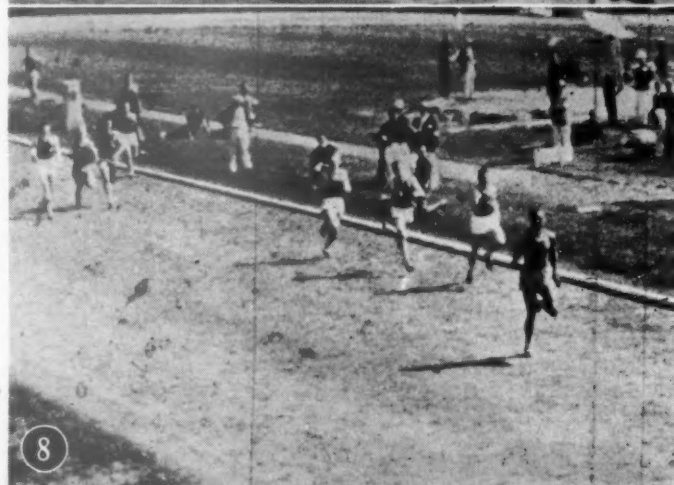
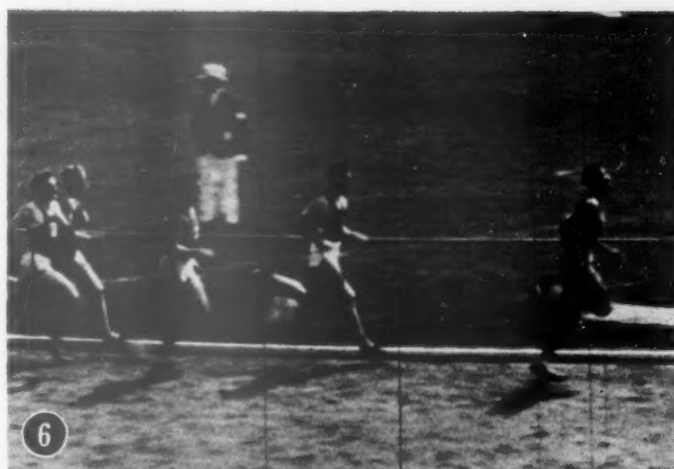
Illustration 5—He is beginning to shake off the opposition by lengthening his stride.

Illustration 6—Notice the lean and use of the arms.

Illustration 7—Rounding the final turn and preparing for the final sprint.

Illustration 8—He is now beginning his drive for the tape.

Illustration 9—Notice the final drive for the tape. The action of the rear arm and legs is very good.





the more a runner assists another in his particular event, the more, with a few hints from his coach occasionally, will he learn about that event.

No two athletes are alike, and a coach should adapt an individual program of training to each man. Some boys come to a coach very nervous and high-strung and overly ambitious to work. If the coach is not careful, he may allow the boy to train too hard, causing him to lose interest and drop from the squad. Another type of boy is slower and not such a hard worker. This type must be encouraged to work just a little harder to reach his maximum efficiency. One group needs a lot of work to get to the top, while the other must be worked sparingly. A coach must study his men at all times, if he expects them to give their best at the time of competition.

It is said that there are two types of half-milers; those who can run both 440 and 880 and those who are best at the mile and 880. I have seen both and I am inclined to believe that the first type is better suited for the competition of today. I have seen only one who approaches a combination of the two and that is John Woodruff, our 1936 Olympic Champion at 800 meters. He has run the 100 yards in 9.8 seconds, the 220 in 21.1 seconds, the 440 in 46.8 seconds, the 800 meter in 47.8 seconds and the mile in 4 minutes 17.2 seconds. I know of no runner who has approached these times unless it is Eastman, the old Stanford runner.

There seems to be no set type physically for the 880-yard run. The better ones range in height from 5 feet 8 inches to 6 feet 4 inches (John Woodruff). Personally I prefer boys not shorter than 5 feet 10 inches.

I do not give any of my boys starting practice until they have been training for at least four weeks. Too much starting practice in the early stages of training, unless watched very carefully, often results in unnecessary muscular soreness. The start in the 880 is not so important as in the shorter running events. The training distances that I find most satisfactory are 300 yards, 600 yards and three-quarters of a mile. Three hundred yards between 33 and 35 seconds is fine for speed work, 600 yards between 1.15 and 1.22 seconds is good for pace, while the three-quarter mile is to be recommended for over-distance work in time from 3 minutes 15 seconds to 3 minutes 20 seconds. Unless I have to decide upon a man for a meet, I do not run time trials during the week in the event in which a boy participates.

During the dual-meet season, a boy who is inclined more to the 440 than to the 880 will take part in both, while a boy who is also a good miler will run that distance in addition to the 880-yard run. I believe that this is good practice in preparation for the championship meets in

June. Most boys, if properly conditioned, can do this, but in some cases one race is all that a boy can stand. Often, because of too keen competition from an opponent, changes have to be made. During the latter part of the season after a boy has reached his form, I believe that three days' practice is sufficient; namely, Tuesday, Wednesday and Thursday.

### Training Schedule

On Tuesday the runner should spend about ten minutes warming up, then run through a couple of 300's with thirty minutes' rest in between, walk a half-mile slowing down to normal, and go into the showers.

On Wednesday the usual warm-up, followed by a 600 in 1 minute 20 seconds, a half-mile jogging, and a shower.

On Thursday warming up as usual with a three-quarter-mile run in about 3 minutes 20 seconds.

This program may not suit every individual but it should be left to the coach and the athlete together to decide the best schedule. To excel in the 880-yard run requires much work and sacrifice on the part of the athlete. Success is then its own reward.

## Winners of the 880-Yard Run in the 1937 N. C. A. A. Meet

### John Woodruff

John Woodruff is probably the tallest track man in the flat races. He is 6 feet 4 inches tall and weighs 180 pounds. He is twenty-two years old.

Before coming to the University of Pittsburgh, Woodruff attended high school at Connellsville, Pennsylvania. He was a high school star and his race was the mile distance.

Entering the University in the fall of 1935 he immediately tried out for the freshman cross-country team. This training, I feel, was the basis for his success in the Olympic Games at Berlin. Although he was inexperienced in running strategy, his superb physical condition carried him through to the greatest goal of any boy, an Olympic victory.

In his sophomore year he made the varsity cross-country team rather easily. In his indoor running he lost the first race of 600 yards in the Millrose Games in New York. From then on, he was unbeaten in all collegiate competition. He ended the year by winning the following events; C.I.C. Indoor 880-yard run; I.C.A.A.A. 440-yard and 880-yard runs; N.C.A.A. 880-yard run and the National A.A.U. Championship at 800 meters. He is considered by many to be the greatest middle distance runner of all time.

Woodruff is majoring in sociology at the

University and will graduate in the spring of 1939.

### Vic Palmason By C. S. Edmundson

Vic Palmason is now twenty-four years old and will graduate from the University of Washington in March. He comes from an outstanding and talented family in which all of the children are musically inclined. Vic, himself, is a splendid violinist. He is 5 feet 10½ inches tall and weighs 137 pounds. He is of pure Icelandic stock, as his father and mother were born in Iceland.

Palmason began his track career in his senior year at Ballard High School in Seattle. He confined his running to the quarter-mile at that time and was the runner-up in the All-City championship. Since entering the University, he has specialized in the 880 with the following progress, freshman year, 1:56.4; sophomore, 1:55 flat; junior, 1:53.3; and senior, 1:51.5. He has been the Pacific Northwest champion for three successive years.

His training consisted of cross-country running in the fall and distance work during January and February on the indoor track. During the season of competition, 660 yards was the greatest distance he went for a time trial. On Saturday he competed in the 880 and ran as a member of the mile-relay team.

### Charlie Beetham and Dick Squire

The two Ohio State boys who placed in the 880-yard run in the N.C.A.A. meet are small-town Ohio lads who love to run. Although Charlie Beetham and Dick Squire placed in the 880, they believe that they are better quarter-milers than half-milers.

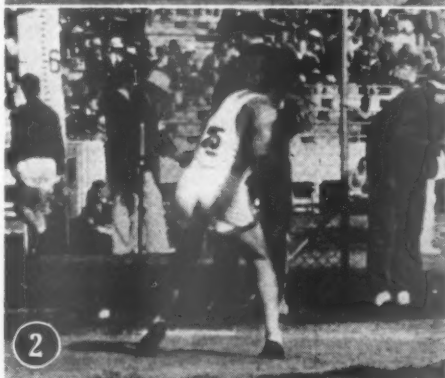
They ran almost daily during the summer of 1937. When school opened in October, they were the leaders in the workouts. Fall workouts at Ohio State consist of running, jumping, weight throwing and relay work.

Together with Harley Howells, they ran on the one and two-mile relay teams indoors. With Bob Blickle, they were undefeated in the two-mile event.

Just how the boys trained means nothing to other boys, except that they trained carefully, always warmed up well before any effort and never ran to the point of exhaustion. No workout at Ohio State is planned in advance, even a day in advance, unless it be in the nature of a definite time trial for a certain group who are competing for a relay team. Track is an individual sport. The workout that one man needs often is diametrically opposed to that of a team mate in the same event.

As each runner reports at the track, he is engaged in conversation to determine exactly how he feels on that particular





day. Often mid-quarter examinations, or extra-curricular activities, allowing only a few hours' sleep the previous night, eliminate any except the lightest workout. The coach needs the boy's honest opinion about himself. If the boy arrives at the track with the hope that he will, on this day, be allowed to do so-and-so, the coach has an opportunity to talk it over with him. If they do not agree, then a brief survey of his condition and the coach's idea of what he needs, and the reason for the change will make the workout more satisfactory to both the boy and the coach.

The Ohio State boys work hard in the pre-meet season, then as competitive efforts on Saturday become more strenuous, Tuesday and Wednesday are the only hard practice sessions. Of course, there are exceptions to this rule. Both the coach and the boy know that his efforts on Saturday are the key to the work needed the following week.

It was noted that these boys prefer the quarter. Squire and Beetham planned to take first and second in the outdoor Big Ten meet, Beetham doubling in the half. Squire did not qualify in the 440, but placed second in the 880. Beetham tried the novel idea of sprinting the entire 440 in the finals and ended up in fifth place tied into a knot. He came back forty-five minutes later and ran 1:52:2 in the mud. Then he ran freely and relaxed

(Continued on page 46)

## The Discus Throw

Illustration 1—The thrower stands at the rear of the circle with his left shoulder toward the direction of the throw.

Illustration 2—The throwing arm is swung back. The crouch is started.

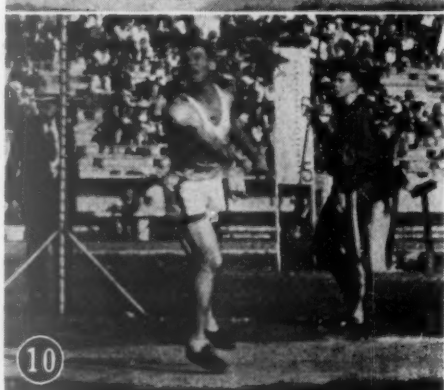
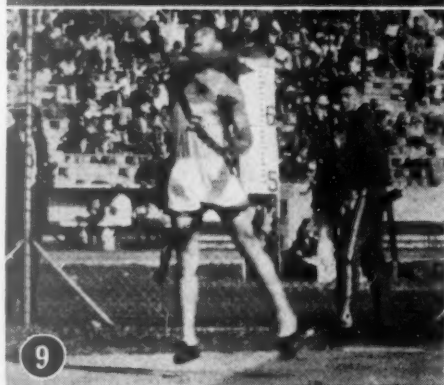
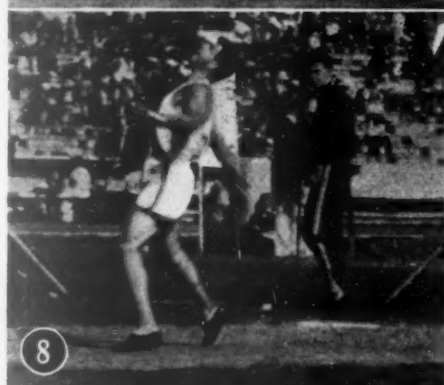
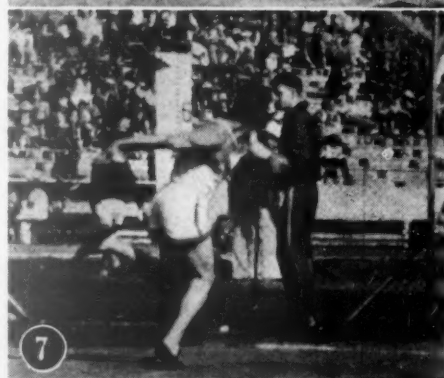
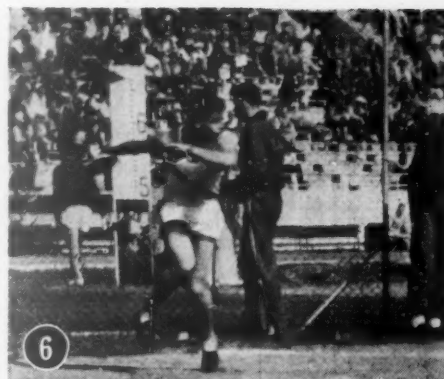
Illustration 3—Shows a full crouch. The arm is at the fullest backward extension. Note the angle of the face of the discus with the ground. The thrower's weight is well-balanced on the balls of his feet.

Illustrations 4 and 5 show the left arm flexed in relaxed fashion across the body.

Illustrations 2 to 7 inclusive—The angle of the body lean is maintained throughout the action until the delivery of the throw.

Illustration 8—The thrower is ready for delivery. The shrug is shown exceptionally well. The thrower is in position to apply maximum power. The head may be drawn a trifle too far back. The right leg is in position to add its drive as it is straightened. The throwing arm is trailing sufficiently to insure a powerful pull.

Illustration 9—The discus has been delivered. The straightened right leg shows that the drive has been applied. The force of the throw lifts both feet off the ground. The throwing arm breaks across in front of the chest.



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JOHN L. GRIFFITH, Editor

## S. Clyde Williams

SUNDAY, March 20th, marked the passing of one of the finest sportsmen our country has ever produced. Clyde Williams was a great athlete. He won ten letters when he was an undergraduate at the University of Iowa. He coached and was Director of Athletics at Iowa State College from 1906 until 1919. He was formerly a member of the N.C.A.A. Football Rules Committee. He officiated for a number of years in the Big Six and Missouri Valley Conferences. We might go on and make a long list of his achievements as an athlete and a coach, but his friends mourn him today, not because he was a brilliant quarterback and not so much because he was a successful coach and a splendid athletic director, but because he exemplified in his daily life his teachings. A few days before his death he asked one of his former players to tell the other boys not to mourn his passing and to tell them that he had tried to play according to the book until the end. Before that end came he suffered intense agonies but never once did he complain. He was a true soldier and a fine example for all of us who believe in the virtues of clean competition.

The following is a quotation from the 1917 Ames Yearbook which gives something of an idea of how the Iowa State students felt about him.

"Clyde came to us in the spring of 1906 to coach our baseball team. He has been recognized by many critics as the greatest athlete that S.U.I. ever had. It was not his exceptional ability as an athlete that brought him back to direct our teams in the years 1907 to 1912, but his reputation as a good sportsman.

"He desires victory but not at the expense of honesty. Clyde would rather lose fairly the hardest contest ever staged than to win by questionable methods.

"His unvarying patience when trying circumstances arise, as they often do, and courteous conduct with all who came in contact with him have earned for him his well-deserved popularity and the esteem of the student body.

"Iowa State college is to be congratulated upon knowing and keeping such a man."

We come to know the men against whom we play and with whom we as coaches have competed. As one whose teams competed against Clyde Williams' teams for at least a decade, let it be said that never once in all of that time did Clyde do a small, mean or unsportsmanlike thing in athletics or in any other field of activity. One time my team met his in an Indoor Meet at Ames. In the quarter-mile two Ames boys who were fine runners jumped out in front and held the pole in such a way that my quarter-miler could not pass. On the last turn the Drake quarter-miler passed one of the Ames runners and came in second. Clyde came over to the finish judges and insisted that we be given first place. This was not necessary because in those days, at least, it was considered legitimate by many to take advantage of the knowledge of the track and of the ability to hold the pole. Clyde Williams, however, never relied on technicalities. He was a sportsman through and through. He never preached but his life was a sermon. When he died the high and the low gathered to pay tribute to a departed friend. The little children in his town sold magazines and scrap iron with which to buy flowers to place on the bier of their beloved Sammy.

## College and High School Co-operatives

WE have been hearing a great deal in recent years about co-operatives. Unfortunately the term means different things to different people. The schools and colleges organize conferences and leagues which represent the spirit of co-operation. The members of these organizations agree as to how they would like to play the game. The individual institutions, however, maintain their autonomy. The world may well look to school and college athletics for a lesson in these matters. The teams play hard but both the institutional administrations and the boys for the most part play according to the rules and agreements.

In 1919 President Woodrow Wilson had an idea that this same theory of co-operation might be followed by the nations of the world. He and others proposed a league of nations with the thought that the larger nations would protect the smaller ones from aggression. This of course was only one of the planks in the League of Nations platform. We are not attempting to suggest whether the United States was wrong in not entering the League of Nations but are simply calling attention to the fact that the league has failed and today the idea of international co-operation has, to a large extent, disappeared. If a powerful nation wishes to seize the territory of a weaker one it is quite clear that the other countries will not intervene. Thus we are going back again to the old idea of the law of the survival of the fittest. This law is nature's law and while it may be modified, a way of repeal-



ing it has never been found. There was a time when murder and robbery were considered fair means of competition. This is no longer generally true so far as individuals are concerned in their competitions of life.

May we not be pardoned for suggesting that perhaps the men who are administering school and college athletics are farther advanced in civilization than are some others who are administering national entities. We in athletics have the opportunity of demonstrating over and over again that we can compete to the limit of our capacities and still respect the niceties of competition, that we can try as hard as possible to defeat the other chap and still think of him as a friend and not a foe.

## Coaches' Salaries

IT is sometimes suggested that the school and college athletic coaches are paid larger salaries than they should receive. A study made by the Carnegie Foundation some years ago showed that the average salary paid school and college coaches was pitifully small. If, however, the coaches earn more money annually than those of other groups the question arises as to what is wrong with this. Who is to pass judgment on the value of any man's earnings. Mr. John Rustgard, author of the book, *Sharing the Wealth* presents some interesting thoughts on this general question. He suggests that, "There is a standing complaint that there is too wide a difference in the incomes for services rendered, that the difference in remunerations is out of all proportion to the difference in the amount and value of the contribution each makes to society. There are prima donnas paid as much as \$3,000 for an evening's performance. We find musicians earning up to \$100,000 per year." . . . "A movie star is reported to draw a salary of \$150,000 per year. I do not believe he earns anything and I would not give ten cents to see him or his film, but I am not the one for whom he is working, nor am I contributing to his salary. He is working for the public generally and the public are eagerly paying with their own coin for what he gives them. They do not have to do so. Their money is their own. The contribution is voluntary. When they do pay, it is because, in their judgment, he is worth fully as much as they give him."

Mr. Rustgard also calls attention to a young immigrant from Europe who found a job in a manufacturing plant at menial labor. In a few weeks he was promoted and his salary increased. In a few years he was installed as manager of one branch of the business at a salary of \$50,000 per year. This man had no friends or relatives to intercede for him. Apparently those who paid his salary felt that the company made a profit on his services. Later a competing firm of manufacturers hired him at \$100,000 a year and recently it was announced that he was now receiving a salary of \$325,000 which is almost as much as Marlene Dietrich is reported to receive.

The point that Mr. Rustgard makes is that the question of whether these people are overpaid is ultimately left with the masses to decide. In recent years there have been some who have contended that the politicians or someone else should place a limit on how much a man might earn or they should find a way of dividing men's profits among others who receive little or small pay. That is, a star who receives a large sum for an evening's performance should be forced by someone to share his pay with the ushers in the theatre.

This is a peculiar philosophy which is entirely un-American. It was given impetus by Karl Marx nearly 100 years ago and has been promulgated since then by certain types of people who believe in the leveling-down process. Any man who reasons that if a football coach's salary of \$6,000 a year was arbitrarily cut in half the janitor's wages would thereby be doubled has, to say the least, a twisted mentality.

## Overcoming Handicaps

WE have before suggested that in every school and college student body a few of the male students are sub-normal physically, a few are of superior athletic attainments and the rest may be classified as average. The boy who is in the first mentioned group is ministered to by the orthopedic or health department and is encouraged to overcome his physical handicaps with the thought that some day he may participate with the other lads in intramural athletics.

The boy who plays intramural games is encouraged to look forward to the time when he may represent his institution on the varsity team. We will always have three groups made up of the inferior, the superior and the middle class. The Department of Physical Education and Athletics should look after the needs of boys and young men in all three groups.

Glenn Cunningham and San Romani are illustrations of boys who became champions in spite of their physical disabilities. The press recently carried the following letter written by Glenn Cunningham to Ernest Eubank of the University of Richmond and a fellow fraternity member:

"Dear Brother Ernest: I have learned that you were in an auto accident and seriously injured. I sincerely hope that you are well on your way to recovery by now. Sometimes it's a tough battle, but the greater the handicaps one has to overcome, the more life means and the better one is able to understand it.

"While a youngster of eight, I was in an accident in which I was seriously burned. I was given up as a helpless cripple, supposedly never to walk again. I only hope that you will fight your way back as I did. Right now I'm in the best physical condition of my life."

What Glenn Cunningham has done by way of overcoming handicaps should be an inspiration to every lad who is physically below par.



# DRAKE

## TWENTY-NINTH

APRIL 29 a

### Des Moines Says

The Greater Des Moines  
cordial invitation to athl  
colleges and high school  
tend the Twenty-ninth

Iowa and its capita  
of the Relays, one of t  
athletic events of th  
they will make ev  
have your stay he  
and pleasant

**Founder**  
**John L.**  
**Griffith**  
**Director**  
**Franklin P.**  
**Johnson**

FRED PADGETT



*This is Drake  
university's track  
captain, Fred Padgett,  
a fine distance runner.  
He will probably represent  
the Bulldogs on the distance  
medley and four-mile relay quar-  
tets in this year's Drake Relays.  
Padgett will be competing against the  
cream of the nation's distance stars  
from all over the United States, just  
a part of the athletic greats to be seen  
in action at the Relays.*

### PROGRAM

#### Special Events

100-Yard Dash, 120-Yard Hi  
Put, Javelin Throw, Broad Jun  
440-Yard Hurdles, Two-Mile  
and High Jump. (Open onl  
university men.)

#### University Section

440-Yard Relay, 880-Yard Re  
lay, Sprint Medley Relay, Dis  
lay, Two-Mile Relay, Four-Mi  
Yard Shuttle High Hurdle Re

#### College Section

880-Yard Relay, One-Mile Rel  
Relay and Two-Mile Relay.

#### High School Section

(Separate Relays for Class  
Schools; Iowa high schools w  
dents, and all out of state of  
A.) 440-Yard Relay, 880-Y  
Mile Relay and Two-Mile Rel

# INTH ANNUAL RELAYS

29 and 30

says "Welcome!"

Moines Committee extends a  
o athletes of universities,  
schools of America to at-  
y-ninth Drake Relays.

capital city are proud  
ne of the outstanding  
s of the world, and  
ke every effort to  
stay here a happy  
pleasant one.

## PROGRAM

### Special Events

20-Yard High Hurdles, Shot  
Broad Jump, Discus Throw,  
Two-Mile Run, Pole Vault  
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### University Section

60-Yard Relay, One-Mile Re-  
lay, Distance Medley Re-  
lay, Four-Mile Relay and 480-  
Hurdle Relay.

### College Section

One-Mile Relay, Sprint Medley  
Relay.

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for Class A and Class B  
schools with over 600 stu-  
f state of Iowa, are in Class  
lay, 880-Yard Relay, One-  
o-Mile Relay.

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The Headquarters Chairman of the  
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States—may be obtained.

For further information, write Director Johnson,  
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**GREG RICE**



Introducing Greg  
Rice, Notre Dame,  
one of the country's  
greatest distance runners,  
who will be among top-  
flight athletes in this year's  
Drake Relays. Rice, undefeated  
in college competition, won the  
two-mile run in this year's Cen-  
tral Collegiate indoor meet and  
in the 1937 N.C.A.A. meet. He'll  
be set to shatter marks in this  
year's cinder classic.

## Pictures an Aid in Coaching Fundamentals

IN the fall of 1935, after having spent twenty-six years in professional baseball as player and manager, Mr. Jack Sheehan was put in charge of baseball in the Chicago Park District. His immediate superior, V. F. Hernlund, General Supervisor of Physical Activities, was anxious to stimulate interest in the game and asked for ideas along that line. Mr. Sheehan suggested baseball schools patterned after professional baseball spring training camp procedure. He also wrote articles covering this plan and then suggested that slow motion pictures be taken of Major League players in action, demonstrating the points that he wanted to bring home to the youngsters.

Mr. Sheehan then approached the officials of the Chicago Cubs who, in turn, asked the players for their co-operation. The Chicago Park District furnished the cameraman, film, and camera, and had the films developed. The pictures, which are strictly instructive, have been shown in the Chicago parks and to schools, churches and industrial groups outside the parks. In most of these showings, Mr. Sheehan has acted as commentator.

This publication is greatly indebted to Mr. V. F. Hernlund and Mr. Jack Sheehan for their co-operation in making it possible for this excellent series of pictures to reach its 14,000 readers.

Another series will appear in the May issue.

### A LESSON IN BASERUNNING

Illustration 1—Stanley Hack has hit the ball.

Illustration 2—Leaves the plate.

Illustration 3—Starts down the base line.

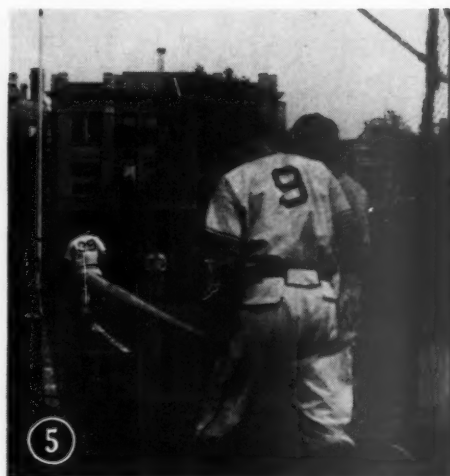
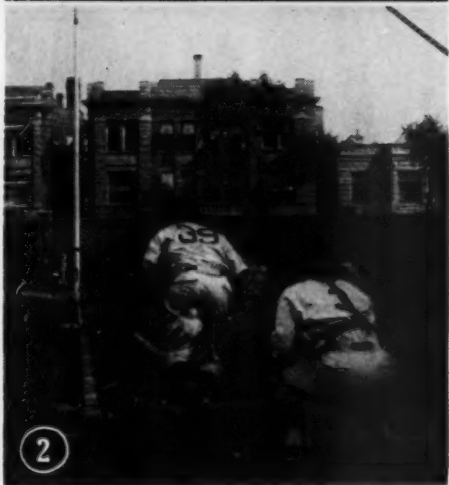
Illustration 4—Starts to his right, nearing the base.

Illustration 5—Goes to the three-foot line.

Illustration 6—Starts back across to the left.

Illustration 7—Touches the inside corner of first base with the left foot.

Illustration 8—Crosses over with the right foot.





# BILL LEE SHOWING A WIND-UP



Illustration 9—Note the position of the feet on the rubber as the pitcher waits for the signal.



Illustration 10—Note the position of Lee's arms above his head.



Illustration 11—Note how he picks up the left foot and pivots on the right.



Illustration 12—Note the height of the left leg and position of the ball which is hidden from the hitter.



Illustration 13—The ball is brought down behind the right thigh.



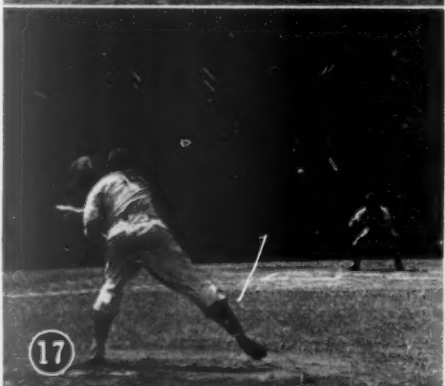
Illustration 14 shows Lee starting forward with the ball brought back behind the entire body.



Illustration 15 shows Lee about to release the ball.



Illustrations 16, 17 and 18—Note the follow-through of the right leg, how Lee brings his foot down and his hands up in a fielding position.



**GABBY HARTNETT SHOWING  
HOW TO GET THE THROW  
AWAY FAST**



Illustration 19—shows Hartnett about to receive the ball.

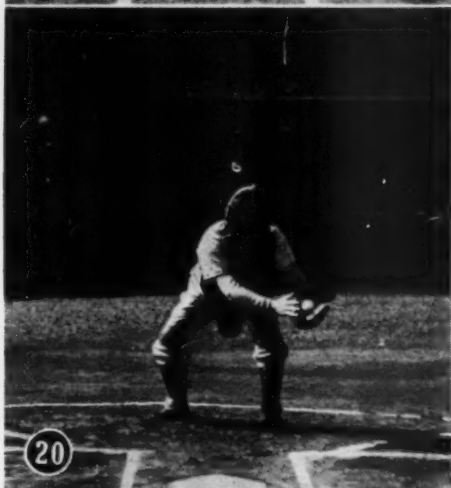


Illustration 20—As he receives the ball, he starts to shift into a position to throw.



Illustrations 21 and 22—Note the position of his feet and the cocking of his arm.



Illustration 23—He has shifted his weight to the left foot, and pivots.

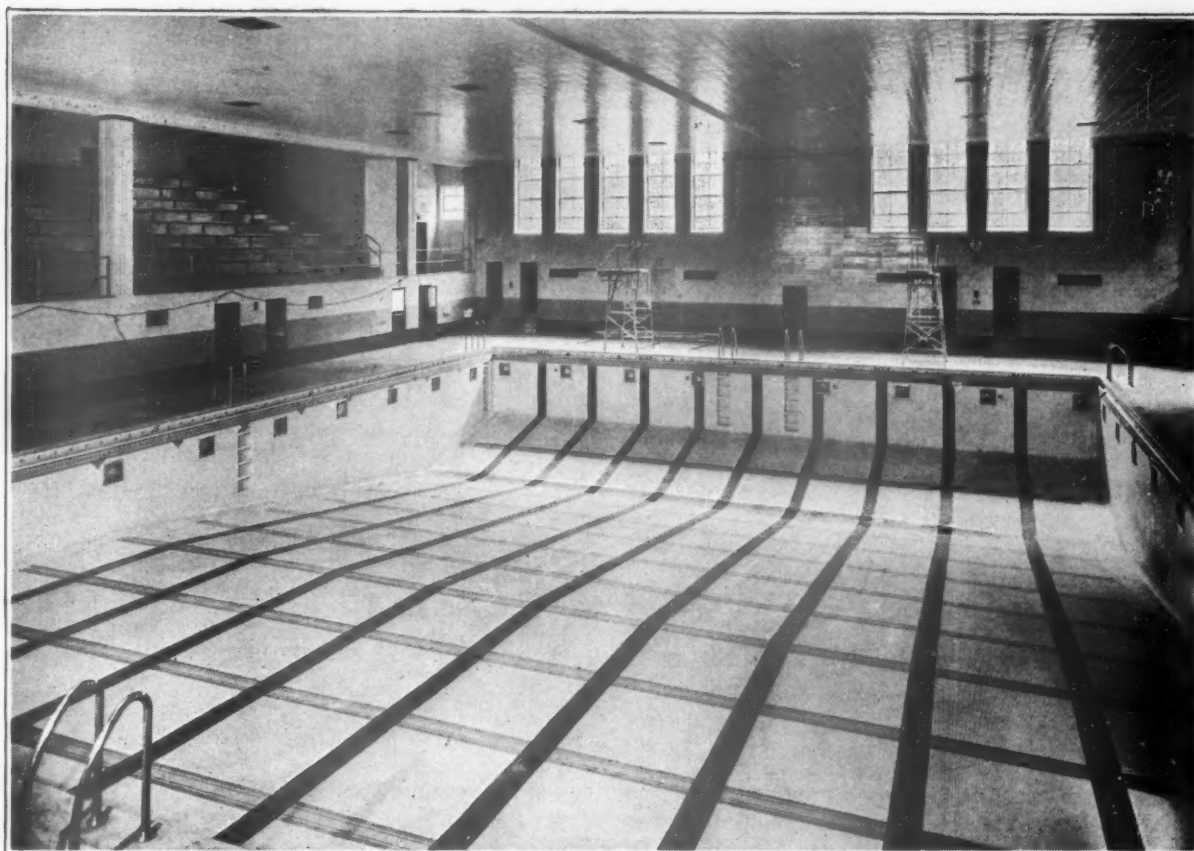


Illustration 24—Hartnett steps forward.



Illustrations 25 and 26—Hartnett has brought the ball up to a throwing position which you will note has never been higher than his head at any time.





*Swimming Pool, New Trier Township High School*

# Indoor Swimming Pool Design

*By Otto H. Matte*

Swimming Coach Proviso Township High School, Maywood, Illinois

**W**HILE every swimming pool presents some individual problems in design, construction and equipment that must be satisfactorily solved, there are certain basic principles that should be included in the design of all pools to insure their safe, efficient and economical operation.

Indoor pools for either public or scholastic use are generally rectangular in shape with the length a multiple of 15 feet and the width of a multiple of 5 feet to accommodate an even number of swimming lanes. Circular or oval pools are mainly used for outdoor or private installations and are not as adaptable to competitive swimming events as those with straight sides.

Rectangular pools 60 feet, 75 feet, and 25 meters long and 20 or 30 feet wide have proved especially desirable for swimming meets since most of the recognized courses are on even multiple of these lengths. The dimensions of a pool should not be assumed arbitrarily, however, but derived from the estimated attendance.

In computing the maximum efficient capacity of a pool, a maximum of twelve

persons is usually allowed for each diving board and the pool area within 10 feet of



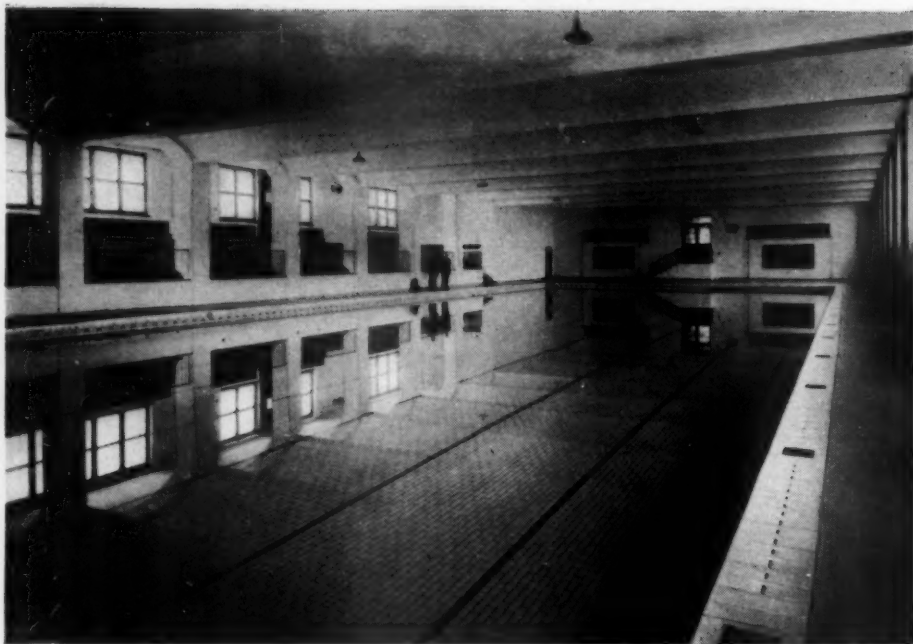
*Pool at Proviso Township High School*

the end of the board, and one person for each 27 square feet of the remaining swimming area. Since only about two-thirds of the swimmers will normally be in the water at one time, this will give each swimmer an average of 36 square feet of pool area, which is generally considered sufficient for normal purposes.

The daily capacity or bathing load of a pool is computed not from the size of the pool, but from the flow of clean water into the pool. Since the quantity of dirt or foreign matter introduced into a pool is mainly dependent on the number of persons entering the pool rather than on the length of time they stay in the water, the number of bathers admitted in any period of time should not exceed twenty persons for every 1,000 gallons of clean water introduced into the pool during that period.

The depth of indoor pools generally varies from a minimum to 3 feet 6 inches at the shallow end to a maximum of 12 feet at a point 15 feet from the opposite end. Where the depth of the water is less than 5 feet the floor should not have a slope of more than 1 foot in 15. At depths greater than this, however, much





*Baltimore City College Swimming Pool*

steeper slopes may be used. A narrow ledge, 12 to 18 inches wide, running around the edge of the pool, 4½ feet below the surface, provides an excellent place for swimmers to rest and does not interfere with persons diving from the sides. Pools built to these specifications are suitable for instructional or recreational purposes and may also be used for competitive swimming events, including the 10-foot or 3-meter high dive.

When possible, the pool should be located so that skylights, windows and sliding doors can be utilized to admit sunlight and air and make the pool more attractive during the day. In some instances, where space has been limited, pools have been installed on the upper floors of buildings, the added benefit derived from the natural lighting more than compensating for the additional cost of the larger structural members supporting the pool floor.

For proper illumination, the combined area of the windows and skylights should be not less than half the area of the pool including the walks. Drafts of outside air should not be permitted to blow directly on the bathers, but should be diffused by baffles or tilting windows. Heating units, if of the radiator type, are more desirable if they are either recessed or screened so that bathers cannot come in direct contact with them, and their temperature should be thermostatically controlled to keep the air temperature in the room between 70° and 75° F.

The problem of condensation in a pool room, whether it is above or below ground, is serious, but can be solved by proper attention. The air in the room normally has a relatively high moisture content which, upon coming in contact with cold walls or ceilings, will cause condensation. By maintaining the air temperature as low as com-

fort will permit, the trouble is minimized, but even then some condensation may be produced. Proper insulation of the walls and ceiling to control the variations in temperature will be beneficial.

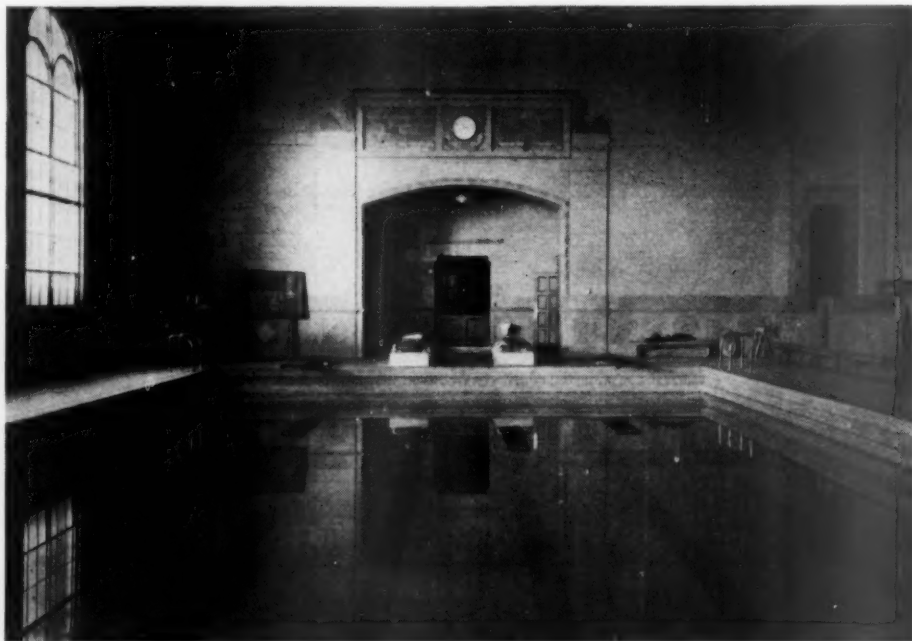
Wall surfaces should be of a material which is not affected by moisture and one which may easily be kept clean. Concrete masonry, cast stone, glazed brick and porcelain tile produce serviceable walls and have unlimited decorative possibilities. Sound reverberations, because of the prevalence of sound repelling surfaces, are frequently troublesome. This may be reduced to a great extent by the use of light-weight concrete masonry in the walls and acoustical tile ceilings or by breaking up the ceiling area by means of beams.

Beautiful decorative effects may be produced by leaving the concrete ceiling beams exposed and giving them an ornamental treatment.

The pool itself must be watertight and designed to withstand the pressure of the water in the pool and the pressure of the earth when the pool is empty. The floor should be at least 6 inches thick, reinforced with mesh or bars weighing 50 pounds or more per 100 square feet. Expansion joints filled with mastic and sealed with twenty-gauge copper strips embedded in both slabs should be placed in the bottom about 40 feet apart, preferably at the 5-foot depth where the slope of the bottom changes. The joints at the bottom corners of the pool, where the floor and walls meet, should also be filled with mastic material. Joints in the walls, should be of the tongue and groove type, sealed with copper strips.

The concrete used in swimming pools should consist of clean, well-graded aggregates, portland cement and not more than 6 gallons of water per sack of cement. The concrete should be mixed in standard type mixers and immediately deposited in the forms. Spading the concrete during the placing operation and vibrating the concrete by means of mechanical vibrators placed either inside the form or against the forms will reduce the possibility of porous spots and produce a smooth, durable, impervious surface. Fresh concrete should be protected from freezing temperatures with dry straw and burlap and from premature drying with a wet burlap, left in place for at least seven days.

The hand rails and scum gutters are usually an integral part of the wall and should extend the full periphery of the pool. Extending the wall slightly above the walk surrounding the pool provides an

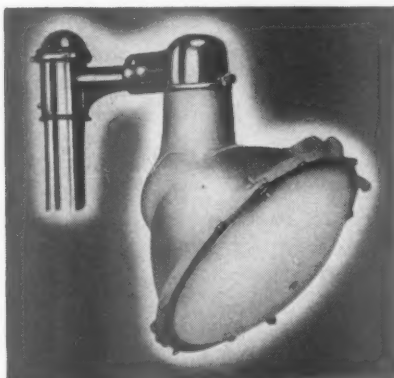


*Swimming Pool, University of Michigan*

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The new Westinghouse AVH aluminum floodlight, with hinged door, is ideally suited for every type of sport application.



The new Westinghouse CS-10 underwater lighting unit is ideal for indoor or outdoor swimming pools.



## COACHES EVERYWHERE PRAISE RESULTS OF NIGHT ATHLETICS

It's kickoff time for floodlighting! Every bit as important as spring training are plans for boosting attendance at games this fall.

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For proper illumination of football

fields, softball and baseball diamonds, tennis courts, indoor or outdoor swimming pools, Westinghouse offers a complete line of floodlighting equipment, designed and constructed for each specific application. Westinghouse floodlights are rugged, weatherproof lighting units that give efficient, trouble-free performance at reasonable installation and operating cost.

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Dir. Phys. Ed., Chicago Public Schools  
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additional handhold for bathers leaving the pool and prevents water from the floor from draining back into the pool. If the wall of the pool is not raised above the walk, the scum gutters should be designed to catch this surface drainage. In either case the coping should have smooth rounded corners and a non-slip surface at least a foot wide.

Ladders recessed into the walls have proved very satisfactory. When pipe ladders, which fasten to the wall, are used they should be removable to permit the use of the full width of the pool for competitive events.

The sides of the pool should be perpendicular and may either be lined with cast stone or tile, or the structural concrete may be used without additional lining. An excellent surface can be secured by rubbing the concrete with carborundum bricks immediately after the forms have been removed. A finish of white cement paint produces an attractive pool.

Lane and depth markers of a sharply contrasting color may be painted on the walls of the pool or permanently embedded in the walls or lining. Colored tile or cast stone blocks installed either as a part of a lining or directly into the concrete walls, provide clear-cut markings that do not require further attention and add greatly to the beauty of the pool. If painted lines and figures are to be used, their outlines should be marked in the fresh concrete to facilitate repainting.

Flood lights for the pool room should be designed by a lighting expert and so arranged that all parts of the pool receive adequate illumination.

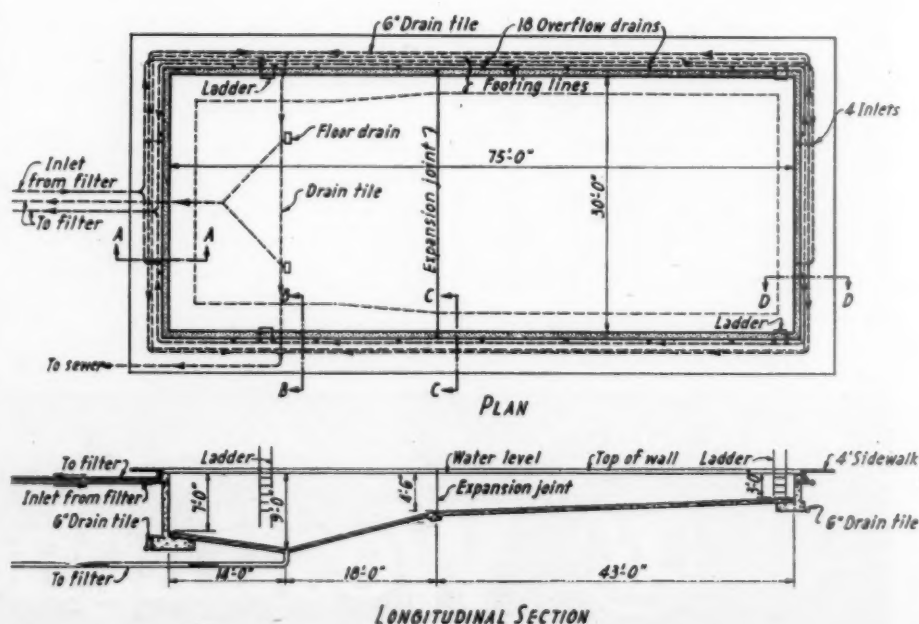
Underwater lights, first used in the Columbia University pool built in 1887, which had old style carbon arc lights installed behind glass windows have been extensively developed during the past few years and

are now available in a number of styles. For night events lights of this type recessed in the sides of the pool give the water a particularly attractive crystalline appearance and illuminate all portions of the pool.

Watertight observation windows set in the sides of the pool below the waterline, which permit coaches to study the underwater technique of their pupils, have been used in many school installations. To be of greatest benefit, the windows should be large enough to permit adequate observation and be so designed that the coach can assume a comfortable position while watching the students in action. Many coaches who have this equipment at their disposal, while realizing the value of this type of instruction, have not made as extensive use of it as might be expected due to a poor arrangement of the observation quarters.

The water used for swimming pools is supplied by two general methods. The fill and draw system, in which the pool is drained and refilled periodically, although suitable for small, private or oceanside pools is not as satisfactory for general purposes as the continuous circulation type. The latter system, in addition to being much more sanitary, is more economical when the water is heated and does not necessitate the periodic closing of the pool required by the fill and draw method.

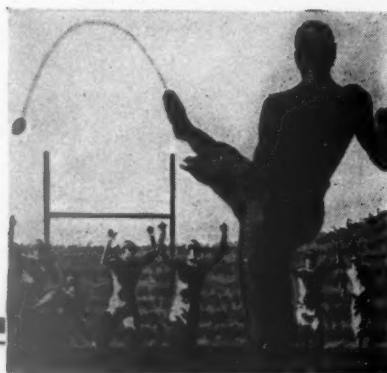
In a recirculating system, the water is continuously maintained in a pure state by drawing it from the pool through drains placed on the bottom passing it through purifying equipment of proper design and capacity and returning it to the pool through inlets placed approximately 10 feet apart in the walls and about 10 inches below the surface. Hair catchers installed as a part of these systems,



LONGITUDINAL SECTION



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**P**LENTY of long kicks, too! For every record kick ever recorded in football was made with a Spalding Official Ball.

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And Dolcorock means a handsome floor, for it is proof against rubber burns—is virtually infusible. Stays handsome a long time, for it is durable.

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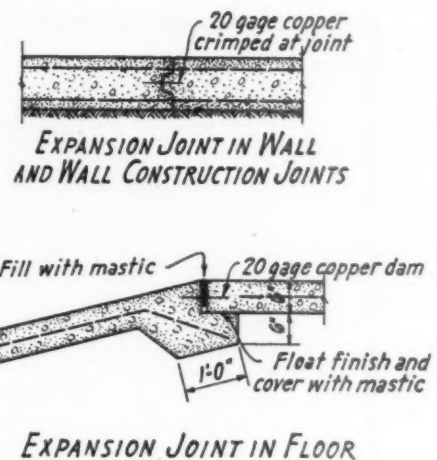
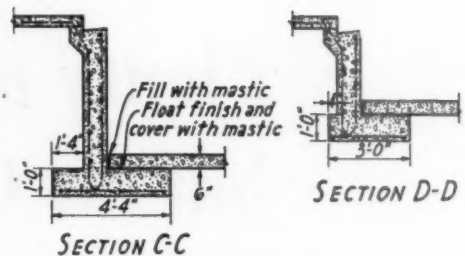
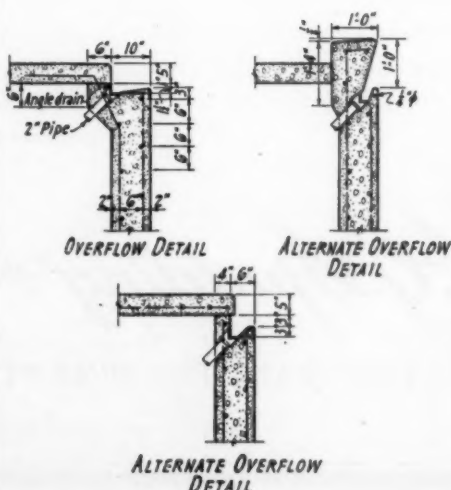
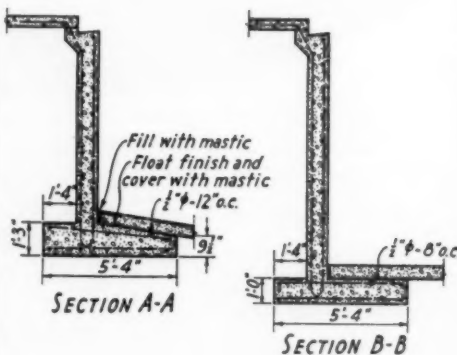
**The C. B. DOLGE CO.**

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eliminate hair, lint and other matter from the water while finely divided insoluble particles are precipitated by an alum coagulant and removed by mechanical filters. For proper clarification of public pools, the filtration equipment should be of sufficient capacity to provide a turn-over of the pool capacity at least once in every eight hours.

Sterilizers, generally of the chloramine, chlorine gas or sodium hypochlorite types, destroy the active harmful bacteria in the water before it is returned to the pool and also imparts to the water a residual sterilizing power which destroys the bacteria as soon as they are brought into the pool. Various other methods of sterilization have been developed, but chlorine in one form or another has been the most widely used due to both its effective results and simplicity in taking tests.

Large or heavy particles of dirt or sand which are not carried into the floor drains are usually removed with vacuum pool cleaners. These are operated, from either the sides of the pool or from the bottom by an attendant wearing a light diving mask, much like ordinary domestic vacuum cleaners except that the dirt-carrying agent is water instead of air. Attaching the base of the cleaning nozzle to either a portable suction pumping unit or outlets of the recirculating system placed on the sides of the pool near the surface will create sufficient current to remove this sediment and keep even outdoor pools clean and sanitary.



Floating particles are usually carried off by raising the surface of the pool and allowing the surface water to drain into the scum gutters. Inlets in the scum gutter may lead into the recirculating system or sometimes to the sewer. A direct connection from the pool to the sewer is not advisable and is prohibited in many states due to the danger of backwater from sanitary sewers entering the pool. Similarly direct connections between swimming pools and water supply systems are also prohibited in most states. Open surge tanks or vacuum breaks, installed between the service connection and the recirculating system do not interfere with the normal functioning of the installation and prevent any possibility of contaminating the water supply.

Heating units are usually installed between the filters and the chlorinators and are generally of the ordinary boiler type with a capacity large enough to maintain the water in the pool at the desired temperature. The injection of steam into the water to accelerate heating or as a means of heating the water, is not permitted in many states.

In the design of swimming pool installations the arrangement of the locker rooms, showers, bleachers and coaches' quarters are also of prime importance.

Locker rooms should have concrete floors with concrete base boards at least 6 inches high, constructed as an integral part of the floor. If concrete platforms the same height are placed under the lockers, the floor can be flushed down with a hose without damaging either the lockers or the contents.

Two separate sets of lockers and showers are very desirable and should be pro-

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This vulcanizing process gives the softball *two or three times* longer life

**BECAUSE:** The Kapok processed to the inner side of the shell prevents the abrasion and wearing that causes breakdown of fibre.

The vulcanizing process betters performance

**BECAUSE:** **1,** It protects shape and freshness in dry climates. **2,** Adds life and resiliency to the ball. **3,** Makes a more flexible ball to pitcher or players' feel.

To be sure of giving your team the advantage of the latest developments in softball equipment, see Wilson softballs, gloves, uniforms and other equipment before you buy any other equipment at any price. See the Wilson dealer or write for the Wilson 1938 catalogue.

*"It pays to play"* **Wilson**  
SPORTS EQUIPMENT

*Illustrating how Kapok is vulcanized to inside of inner shell.*



*Illustrating outer leather cover to which rubber shell holding Kapok is firmly cemented.*

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vided wherever possible. The second locker and shower room not only make special mixed bathing events possible, but it may also be used as a visiting team room or as a means of separating incoming and outgoing swimming classes or groups.

Showers should be placed between the dressing room and the pool. For individual use, showers with individual mixing valves are desirable. When large groups are handled, either group or zone showers controlled by central mixing valves will be found more practical. In the group system, banks of showers with a fixed water temperature established for each group, bathers are enabled to take either hot, warm or cold showers by selecting the group having the proper temperature. In the zone showers, however, the bathers pass from the individually controlled showers through a series of showers maintained at 105°, 90°, 75° and 60°, respectively, before entering the pool.

In any pool, however, regardless of the type of shower installation, both complete baths and a final shower before entering the pool should be compulsory. Although many coaches feel that the danger of contracting athlete's foot in swimming pools has been exaggerated, foot pans filled with an antiseptic solution, placed at the en-

trance to the pool will eliminate the possibility of infection from this source.

Spectators should not be permitted to enter the walk surrounding the pool, but should be confined to a visitors' gallery. Seats in this section may be of either the bleacher or backed types, but should be of such construction as to permit washing. The floor of the visitors' gallery should be concrete with a watertight foot rail or curb and separate floor drains to permit the gallery to be flushed with a hose without the waste water draining onto the pool walk.

Coaches and attendants' quarters separated from the pool room by glass partitions which permit a full view of the pool are very desirable for individual conferences or when checking attendance records and should be incorporated in the design of the pool room whenever practicable. When additional space is available, a separate office maintained at normal temperatures and humidity should be provided.

The plans in this article are not intended for use as working drawings but as typical suggestions. Structures of this type should be designed and construction supervised by competent engineers or architects, based on local conditions and requirements.—EDITOR'S NOTE.

## A Baseball Clinic's High Points

By H. S. DeGroat  
Springfield College

**UNLIKE** the football and basketball clinics that are held throughout the country during those sports' season, primarily for the interpretation of rules, the baseball clinic held by Mr. DeGroat last spring takes on the form of technical discussions. This report of the clinic contains valuable suggestions on technic and interesting subjects for discussion.

**THIS** article is merely an attempt to share, with the interested baseball coach or player, some of the high spots of a baseball clinic held under my direction near the end of the last scholastic and intercollegiate baseball season. The suggestions presented at that time may prove of value to the coach during the present season, from the technical side and also offer suggested subjects for clinics.

R. W. Erickson, newly appointed freshman coach at Trinity College, Hartford, Connecticut, gave an *Analysis of Prospective Pitchers*. Erickson, a former very effective college pitcher and a successful high school coach, who has had the experience of attempting to develop a pitcher in one season, detailed five points of his plan of development:

1—Make the prospective pitcher take advantage of everything he has. (a) Does

he have an *even* temper? (b) Is he willing to learn? (c) Will he keep going?

2—Check on the hands of the candidate. Are his fingers long or short? (a) If long, let the pitcher grip the seams of the ball. (b) If the fingers are short, the grip should be across the seams. Let these lads grip the ball differently when throwing the curve ball. Keep the fingers off the seams when throwing the slow ball.

3—Make each pitcher's motion as easy as possible. Do not change unless to his advantage. If throwing side arm, let him work (a) across one seam only for one curve and (b) across the other seam for a different curve.

4—Let the prospect work on the part of the rubber that he likes and from which he gets the best results. Control can be gained or lost by moving from one spot to another on the rubber.

5—In coaching the pitchers: (a) Make each pitcher work two innings each day. (b) Correct him if he is wrong. (c) Remember his mistakes and start there the next day. (d) Coach him along.

6—The outline of work after a game is as follows: *Monday*—Field ground balls, field fly balls, a little pitching or pointing out of faults before working two or three innings. *Tuesday*—Catching men off bases. Work 20 to 30 minutes on control; work

two or three innings. *Wednesday*—Same as Tuesday. *Thursday*—Catching men off bases. Give suggestions for pitching strategy. Work 10 to 15 minutes on control. *Friday*—Lay off. This depends upon the make-up of the squad.

Coach J. E. Gargan of Kingswood School presented his very excellent plan of developing hitters. His article in the *ATHLETIC JOURNAL* last April, *Helping the Secondary School Batter*, may be read and re-read with value.

Irving Walmer, who has won numerous city baseball championships at Technical High School, Springfield, Massachusetts, gave some high points in regard to the battery.

He pointed out that the catcher should dominate and control the battery. This key man must have energy and pep, ability to throw and be clear-headed and smart. He must shift as the ball is pitched and not let it slip by on either side. He must know how to use his bare hand. His glove target is very helpful, especially with men on bases, if the pitcher is inclined to watch the bases too much.

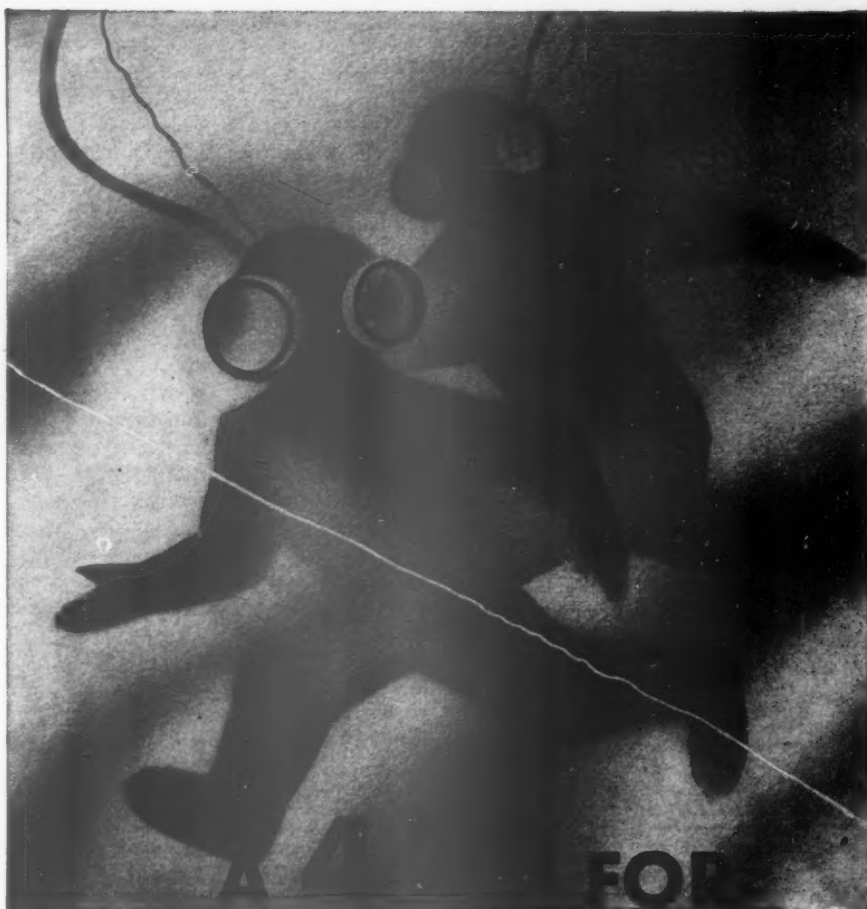
In fielding the ball, his summary of instructions were: Throw underhand if out to the right of the pitching lane. If to the left, throw overhand. If a left-handed pitcher, the catcher should take the balls on the first-base line.

Walmer reviewed his instructions to his pitchers: He works them in two planes; horizontally—high or low. This eliminates the center groove entirely. He has them use their feet to control the inside or outside ball, stepping slightly to the left to throw the outside ball to a right-handed batter and stepping slightly to the right to throw the inside ball. This simple plan seems to have given his pitchers great success and may well be considered by school-boy coaches.

Bob Berry, coach of Springfield Classical High School, listed some of the fundamentals that every coach must stress and repeat every season if he expects to have a ball club; infield fly work, defense against bunts, pitcher backing up bases and working with the infield, trapping runners, fake throws, taking throws at second, and other likely situations.

Berry's experience with high school lads on the double play at second has made him feel that the scoop idea is bad and that the lad should use the bare hand and step and toss the ball for effective double-play action. The toss should be to the heart of the other man. Berry also advised that the pitcher should throw often to the base if the count is 3-2 on the hitter so that the runner will be leaning toward first instead of toward second. He further expressed the belief that high school infielders are inclined to go too deep on relays from the outfield.

Pete Bigler, former professional ball player and now coach at Worcester Technical Institute, emphasized some facts per-



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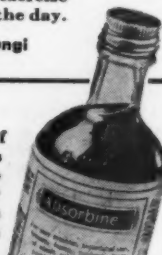
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taining to defensive baseball. To lower the number of bases stolen, he pointed out that very often stealing is due to the pitcher raising his heel too much. The foot should be kept close to the ground as the delivery to the batter is made. Outfielders have a very important part in defensive baseball. They must be backers-up. Two should be after every ball. On a steal, the outfielder should go in as soon as the pitch goes by the batter.

If runners are on first and second with no outs and a bunt is expected, pitcher should throw high outside. Bigler again stressed the fact that the strongest defense in baseball carries down the center with the catcher, pitcher, keystone sack players and the center fielder the real backbone of the defense.

In closing the Clinic, Jack Gates of Loomis School, Windsor, Connecticut, led a discussion that brought out three facts worth further consideration by baseball coaches. First, the knee dip has proven effective by his pitchers if used both in delivery to the bat and in throwing to first with a runner on base. Second, the jump throw to second by a pitcher can be taught the schoolboy pitcher. This maneuver consists of the short turn toward second, done by jumping and turning the body, the position of the feet changing so that they point toward second, instead of the home plate. The snap of the ball occurs as the feet strike the ground. Third, the strengthening of the second team, by cutting the varsity squad to fourteen men, will allow for more and better games for both squads.

## A Note on Doubles Play

By Darwin A. Hindman

Chairman, Department of Physical Education University of Missouri

**I**T is common practice for four players in a doubles match of handball or tennis to arrange a little tournament of three games, each player taking the other three as successive partners, with the expectation of comparing the standings of the four individuals. The assumption presumably is that some such comparison as this may result:

Name	Won	Lost	Standing
Vaile . . . . .	3	0	1.000
Rufi . . . . .	2	1	.667
Melton . . . . .	1	2	.333
Bopp . . . . .	0	3	.000

It happens that no such result is obtainable. In fact, the possible combinations of standings are limited to two, and in either case three of the four men must be tied for one position. The fourth man must win all three games, or else lose all three. More specifically, the table of results will always show one or the other of the following two combinations of standings:

Name	Won	Lost	Standing
Vaile . . . . .	3	0	1.000

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Rufi .....	1	2	333
Melton .....	1	2	333
Bopp .....	1	2	333
Name	Won	Lost	Standing
Vaile .....	2	1	.667
Rufi .....	2	1	.667
Melton .....	2	1	.667
Bopp .....	0	3	.000

It may be of interest to note just why this necessity exists. The explanation is very simple, and requires that one merely keep in mind three perfectly obvious facts: (1) At any given time each player is either the partner or the opponent of any other player. (2) Each player has one of the others as a partner once, and as an opponent twice, in the series of three games which constitute the tournament. (3) A player wins when his partner wins and loses when his partner loses; he wins when an opponent loses, and loses when an opponent wins.

Now, assume that player A wins all three games. Since his partner must always win and his opponents always lose, and since each other player is A's partner once and his opponent twice, it follows that players B, C, and D, will each win one game and lose two.

Similarly, assume that player A loses all three games. Then each of the other three men will lose one game while playing as A's partner, and win two games while playing as his opponent.

Assume again that A wins one game and loses two, and see what success the other three men have. The player who happens to be A's partner when A wins his only game will, of course, win this game. He will also win the other two games because he is in each case the opponent of a loser. The other two players are A's opponents when he wins and hence must lose. In the two games lost by A each of these two players is A's opponent once and his partner once, and consequently will win one game and lose one. Thus it is clear that if A wins one game and loses two, then each of the other two players will also win one and lose two, while the fourth man will win all three.

Finally, assume the only other possible result for A; that he wins two games and loses one. The man who is A's partner when he loses his game will lose all three games, one because he is the partner of A when A loses, and two because he is the opponent of A when A wins. Each of the other two men will lose two and win one; win one as the opponent of A when A loses, win one as the partner of A when A wins, and lose one as the opponent of A when A wins.

If the tournament should be continued through a second round, or even a third one, it would still be impossible for the four men to have four different standings; there would be at least one tie. It is only when four rounds are played that there is a possibility of eliminating all ties.

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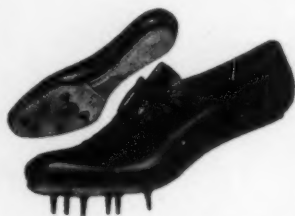
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The necessity for arriving at one or the other of the combinations of standings given above can be demonstrated in a different way, which shows other features of this apparently simple little tournament. In the first round one pair must win and one pair must lose. Since all players change partners for the second round, each team in the second round will consist of a winner and loser; i.e. when the second round begins each team will consist of two men, of whom one has lost and one has won in the first round. Let us, taking W for win and L for lose, show the pairings by representing each man by the games won and lost previous to the round being shown. Then the *second* round will be, as explained above: W and L vs. W and L. To repeat: in the second round each team will include one man who has already won his first game, and one man who has lost this game.

Again in the second round, one team must win and one must lose. The winning team must finish the second round as WW and WL; the losing team as WL and LL. But, WL has won his game in the first round, as the partner of WW, and hence cannot play again with WW as partner. Obviously, the third round can be only: WW and LL vs. WL and WL.

Now, if the first pair should win, the tournament would end with WWW, WLL, WLL, WLL, giving the first table of standings. If the second pair should win, the results would be WWL, LLL, WWL, WWL, as given in the second table of standings.

It is thus seen that in round three, one team must consist of a double winner paired with a double loser, while the other team must consist of two men, each of whom has won one game and lost one.

It might seem that the third round should produce equalized competition by causing the best and poorest player to compete against the other two; the extremes against the means. This, of course, cannot be so, since the pairings are determined in advance. But it is amusing to see how players sometimes fail to grasp this fact. Four men will play a game, then change partners and play again. At the end of the second game, they are delighted to discover that one man happens to have won both games, while a second man has lost both and the other two men have each won one and lost one. What could be better than to match the top and bottom man against the other two, and thus produce a very even game. The fact is, of course, that the men *must* finish the second round as they do; there is no other way. And, if partners are changed for each round, the third round *must* be with a double winner and double loser against the other two.

This little tournament produces a considerable amount of fun, but it is not very effective in rating men and not at all effective in equalizing competition.

## PICTURE REPRINTS

Will all those subscribers of one year or more, who have not requested the 1937 picture reprints as announced in the June issue, please send in their requests at once.

## THE ATHLETIC JOURNAL

6858 Glenwood Ave., Chicago, Ill.

## The 1938 Contest for Coaches and Athletes

FROM time to time coaches have written to the Editor of this publication, explaining the various uses that they have made of the pictures and articles appearing in the *ATHLETIC JOURNAL*.

These letters have suggested a contest to be announced at this time on two subjects: (1) The use that I have made of the *ATHLETIC JOURNAL* in my coaching. (For coaches only.) - (2) The use that I have made of the *ATHLETIC JOURNAL* in my athletic training. (For athletes only.)

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As to the second subject, in many of the schools, athletes are assigned subjects and pictures to study in their training work. An article from some athlete will be of interest to coaches as well as to other athletes.

All entries become the property of the *ATHLETIC JOURNAL*. No manuscripts will be returned unless they are accompanied by return postage. The *ATHLETIC JOURNAL* editorial staff will be the final judge. Each manuscript must bear the name and address of the writer, and the name of the school in which the writer coaches or is an athlete. Typewritten manuscripts should be double spaced.

The *ATHLETIC JOURNAL* reserves the right to withhold any or all prizes in case manuscripts received are of insufficient merit to warrant publication.

For the best article on the first subject, \$20.00 will be paid. For the best article on the second subject, \$10.00.

All articles to be considered must bear a postmark not later than May 15, 1938, and be addressed to Contest Editor, The Athletic Journal Publishing Company, 6858 Glenwood Ave., Chicago, Ill.

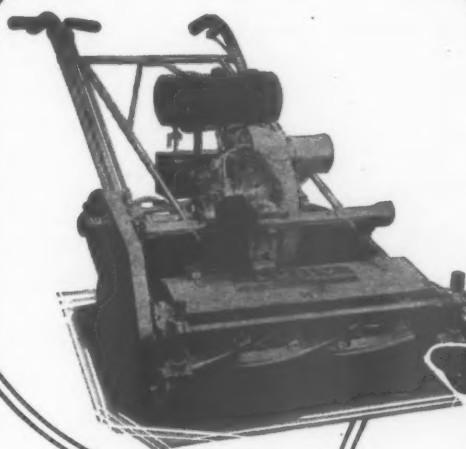
### Running Bases

(Continued from page 6)

The straight-in-slide is made by placing the calf of one leg underneath the other, holding one leg flexed with the toe up for contact with the base. At the instant of contact with the base, pressure may be brought on the leg beneath and cause the person sliding to assume a standing position, ready to continue running if the opportunity permits.

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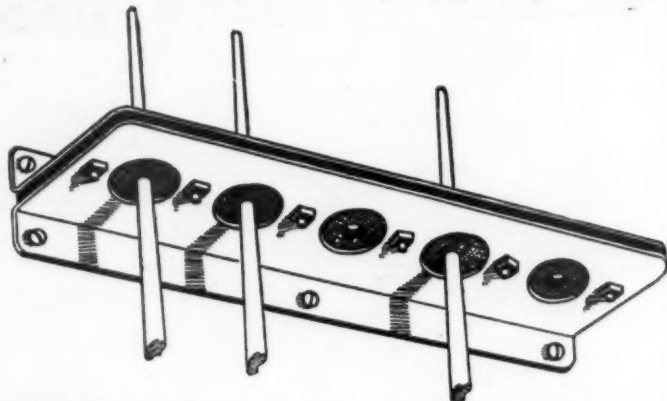
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When the slide is executed, caution should be taken to have the spikes parallel with the ground. A *slide* should be emphasized and any form of a *jump* should be eliminated. The head-on-slide should not be resorted to except in close plays, when the runner is about to be caught off-base.

### How to Practice

Sliding should be practiced first in a sliding pit filled with sawdust and sand, or on a wet, grassy spot which will offer little resistance to spikes. Form should be corrected and confidence built up in the player before attempts are tried on the diamond. Slides should be perfected to either side and straight in. The runner should not attempt any fancy slides until the fundamental slides are perfected. There is little use for them.

## The Amateur and the Professional

(Continued from page 12)

who did no work with his hands and did not receive a daily wage. Representing professional sports, I represent professionalism as it is. It doesn't matter that it gets two pages in the paper for nothing, and that it amasses profits. It is certain that this thing is here, and it has permanency written all over it. Twenty million boys wake up in the morning and read about Babe Ruth, Dizzy Dean, and others. It doesn't matter whether it ought to be this way or not, it is this way. Professional sports have their background and foundation in amateur sports. Sooner or later we look back to find what it is coming out of. We wonder how the roots are being taken care of, particularly if we subscribe to a definite definition of education. I wrote to a number of conferences—I think everyone of them—and to some colleges not in conferences. I got returns from some, and I found out that the eligibility rules disagree. The one I hold here in my hand represents a conference, which I think has high standards and ideals, one that has adhered closely to the standards of eligibility. I will read a few of the questions: "Have you ever received, directly or indirectly, any compensation for your athletic or gymnastic skill, or for your knowledge of athletics? Did you play baseball last summer? What scholarships, loans, or remission of tuition have you received? Have you received any financial aid or promise of aid from any person outside of your immediate family?" There is a statement on the bottom of this blank which reads as follows: "I hereby certify that I have read the Conference rules carefully, that I have answered all of the above questions truthfully, and I believe that I am eligible to

compete under the letter and the spirit of these rules." This is to be signed by the applicant. And then it has to be approved by the chairman of the Board of Athletics, and he signs beneath the statement: "I know of no reason why Mr. Blank should not be eligible to compete in athletics at this time." There is also a footnote which reads: "It is the understanding among the institutions composing the Conference that any student found guilty of falsifying his statement of eligibility will be dismissed from his university."

I shall cite three things to you. You may call the first hearsay and discount it as such. A man who officiated in a prominent football game this fall made the statement that after the game he sought his check for officiating, and when he lined up at a certain place to get his check he found some of the players for whom he had officiated that day getting theirs, and one made the remark to him as he received some money that they were paid off every Saturday afternoon. And if I am pushed to it I will be willing to verify this and tell where this happened and who the player was.

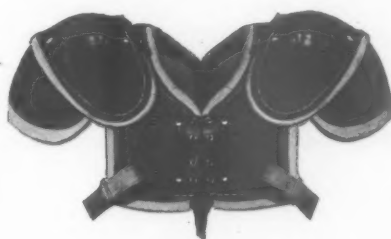
A business manager of a major league baseball club made a statement recently which I had my secretary take in shorthand at the time. He stated to me that a large university in the country paid a certain student so much money, indicating the amount, fifteen hundred dollars, not to play football. The amount was demanded and paid. I can't say whether the athletic authorities had a hand in this or not, but the man accepted the money and did not play college football. The student body couldn't understand it, and made it so unpleasant for him that he left the college before the season was over. The truth of this statement can be supported by a major league club man.

This is the third statement and this is not hearsay. I have in my files a letter from the president of an accredited college of this country—a college against which many of you played this fall—asking me to pay the college money for a certain boy coming as a freshman this fall, and that he, the president, would see that I got the boy at the end of his college course. He said the father of the boy joined him in this request.

I am trying to challenge the obtuseness, it seems to me, that can possibly prevail in an accredited institution in this country. It is different from the definition of education that I have held to so many years. If it's the thing to do, if it's the vogue, if it has come to the point where a boy entering college has got to get his cut, it's either right or wrong. But if perchance he has the feeling that it is wrong, sooner or later, as he signs an eligibility blank or plays football on the college team, he must realize that he has violated the letter and the spirit of the rule he is professing to ob-

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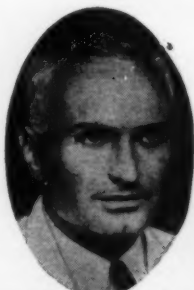
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serve, and that is where the harm is done. Gentlemen, the harm is not to the college, or to the college coach—not to the alumni or to any abstract theory of education—the thing that has been done has been done to the boy. The tragic, pathetic thing is his view of it. This sort of thing is in my judgment not a part of what education surely ought to include. It may be perfectly acceptable to say that a definition of education should include the ingredient called character, whether led to directly or indirectly. This is a by-product in the scheme of things. You gentlemen are in no position to deny that character has a place in your work. And when a boy can cut the corners, he is cutting the temper of his moral tones with a feeling that this is all right because everybody is doing it.

That is the challenge that comes to this body of men. I don't think the presidents, or the boards of trustees, can solve it. The Committee on Athletics can't solve it. I don't think anybody can, except the gentlemen who coach these boys. They have got to take a stand on this matter, not only as individuals, but as a group. I think I know the difficulty. I understand it. The philosophy *cui bono* in amateur athletics is a dangerous philosophy. What for whom? What do I get? It is one objective of the college to produce football and baseball teams, and I think that the tendency of all sports is towards professionalism. It isn't illogical, it's entirely sequential that the result is an interest in pageantry. It is a perfectly logical sequence and leads us right into professional football. It was evident that this would be the next step. Whether this is desirable or undesirable, I don't know. I am not speaking on the point today as to whether this requirement of colleges that the player sign a statement is wrong, or entirely right and should be observed. I am not speaking on the point that the conference eligibility rules are correct and ought to be followed exactly. Not at all. I would rather have a degree from a college with a team playing outside all conferences with openness than from one playing in any conference with secrecy. It's a challenge. There will be gossip and overemphasized and exaggerated talk of violation of eligibility rules in this or that college, and it will get rampant and there will be public criticism of the whole thing. You must be able to take that sort of thing. I have had to. And you will learn to do it.

There is an article appearing in the January issue of the *Readers' Digest*: "The Pro and Con on the Abolition of Football." First, on the Pro side—well, I think the writer's criticisms are in line in part with the gossip and exaggeration about it, and his conclusions are non-sequential. As a result of observation he points out the weaknesses of the present scheme of football and states that we should abolish it. I challenge you to read it. It's of sufficient



interest to every man here. It shows the utter weakness in judgment of the man to recognize that the boys should be paid for their services. He states that they are putting on the show at a big disadvantage to themselves, and that it is entirely justifiable that they should realize something out of it.

Now we come back to consideration of the place that athletics occupy in the field of education. I say to you that, in my judgment, you should have some pretty well-defined definition of amateur athletics. Don't forget that when you find a university or institution anywhere that will violate a code, they will violate the salary limit also.

My plea today is, with all this, that you come to some common definition of amateur sports and abide by it,—that you realize the tremendous responsibility that is uniquely yours,—that you will undertake to solve the problem as courageously as you know how. May God help the presidents of colleges and universities in assisting their coaches, and may they give them all the support of which they are capable.

## Pitching Fundamentals for the Schoolboy

(Continued from page 10)

off the ball except in the act of pitching or throwing to bases.

After the pitcher has assumed his base-runner stance, he takes his stretch by lifting both hands well above the head, gloved hand covering the ball; as his hands again come to rest before his chest, he should glance toward the runner, then back to the target offered by his catcher.

In delivering the ball to the plate, he should start the shoulders turning, the arm moving back and the front foot being raised all at the same time. There is no front kick-up as in the normal delivery; the foot is raised only a few inches off the ground and then slides forward fairly close to the ground. The delivery is not hurried; the quickness of the delivery comes from starting the movements simultaneously.

### Throwing to the Bases

In throwing to first, these movements are started in the same way, but instead of delivering the ball to the plate, the pitcher pivots toward the left on the right foot and throws to the second-base side of first, knee-high, stepping directly toward the base as he throws. These throws are quick rather than hard.

As the pitcher gains experience, he may learn to throw toward either base without first glancing at the runner. He must practice pivoting and driving the runner



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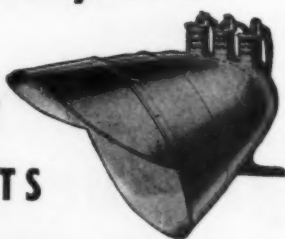
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back to second by a fake to throw. The development of the so-called balk-motion consists in learning to start the delivery to the plate and in making the throw to the bases in exactly the same manner.

### Practicing the Delivery

The young pitcher must practice from the very first his delivery from both his normal and his baserunner stances. During the indoor work, he should also practice pivoting toward bases without throwing. As soon as the team gets out of doors, he should practice throwing to the bases with runners occupying them. In both indoor and outdoor practice it is advisable to have a player in the batter's box.

### Specific Suggestions

1. For indoor practice regulation-sized pitching plates and home plates cut from rubber floor matting make good equipment.

2. Be sure that the plates are set at regulation distance.

3. For indoor practice draw a short line on the floor from the center of the pitching plate directly toward the center of home plate. The line should be about five feet long. During practice on delivery, this line may be used as a guide for the forward step. It helps the pitcher form the habit of stepping directly toward the plate.

4. Be sure that the step is fairly short. The tendency for most young pitchers is to over-step with the pitch. The short step increases speed because it allows a better follow-through.

5. In learning to throw to bases from the box, it is best for the young pitcher to work on but two methods of holding the runner on base. The first and more important is to start his throw to base in exactly the same way that he starts his delivery to the plate. The second is to throw to a base without first glancing in that direction.

6. Use a rosin bag in practice as well as in games.

7. Do not acquire the habit of moistening the fingers or of rubbing the ball on the leg of the pants.

8. While standing close to the rubber learn to take your signal from the catcher.

9. In early-season practice, in order to avoid pitching too fast, pair up with another pitcher and work with one catcher.

10. The most important thing in the delivery is a smooth arm motion. Work to eliminate any elbow snap by stressing a full arm motion from the shoulder.

11. Emphasize full extension of the arm at the finish of the delivery.

12. After a pitcher has developed control and can make his delivery with confidence, he should begin to use a wrist snap to give his fast ball a little more hop and his curve a sharper break.

To be concluded in the May issue.

## Track and Field

(Continued from page 21)

through his leg of the mile relay in 48 flat. Condition rather than judgment enabled him to do this. Squire and Beetham like to trail and finish strong, although they both know pace.

### Training for the Discus Throw

LONG and carefully directed preparation to toughen up the throwing muscles while at the same time developing a mastery of the technique best suited to the individual is, of course, the goal of both discus thrower and coach. The method of accomplishing this aim seems to be about as well standardized among coaches as anything can be which deals with a highly individual sport such as track and field.

Preliminary work in the discus should consist largely of standing throws for the purpose of getting the angle of throw best suited to the thrower. During this time the thrower must experiment with the various grips and decide upon the one best adapted for his use. Most coaches prefer to have the athlete stand at the rear of the circle, facing the direction of the throw and step forward into the throwing stance, rather than have him stand still and

throw. This safeguards the thrower from the development of habits which may be detrimental when he starts to use the full turn.

At first the thrower should not use the reverse. Many men do not use the reverse at all, except as an involuntary follow-up of the violent effort of the throw. The throw must be made while the right foot still has contact with the ground, so that the great power of the leg and hip action may be imparted to the throw.

Discus throwing calls for long daily practices which should, in most cases, extend well into the competitive season. Most coaches feel that the time to work hard in this event is when the athlete has things well under control and his form is smooth. There will be days when nothing seems to go right. On those days it is well to tell the boy to forget it and come out tomorrow.

In experimenting with the angle of the throw, the athlete must study the effects of wind direction upon his throws. He will thus learn how to combat weather conditions as he is forced to meet them in competition. In general, a low throw goes better against a head wind, a high one better with a following wind.

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